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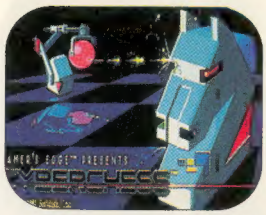

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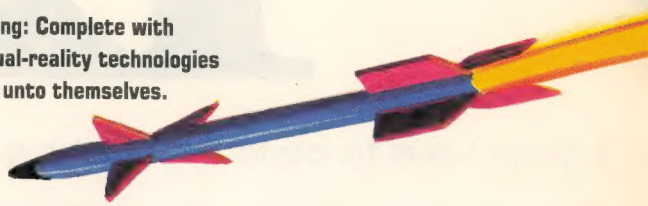

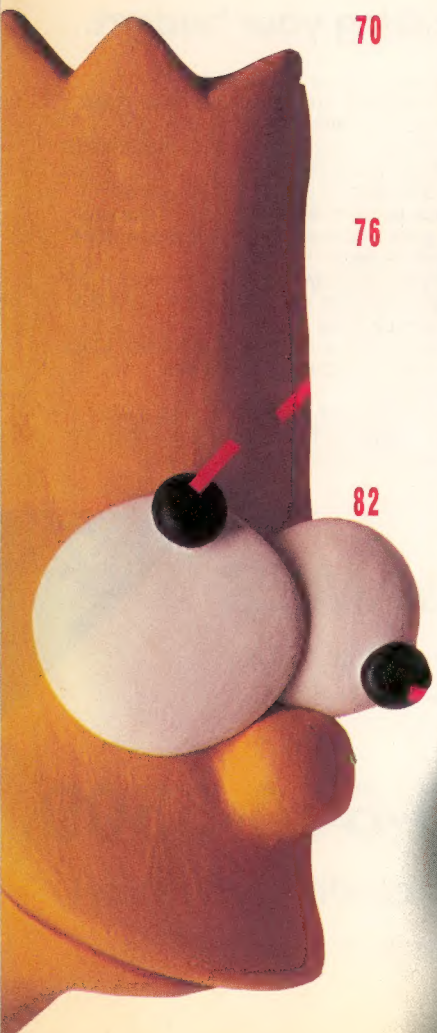

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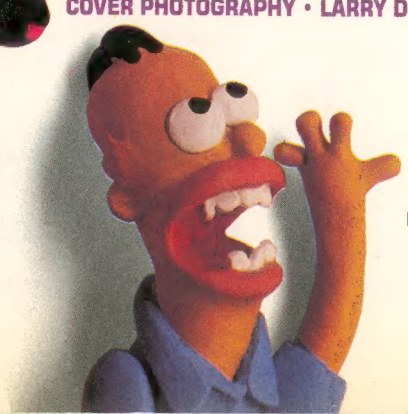

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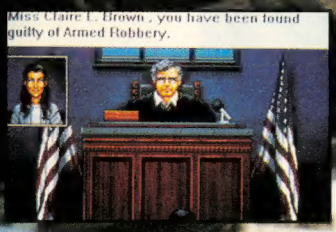
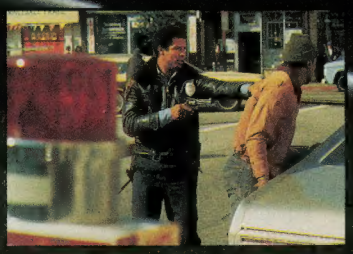
HILL STREET BLUES

THE COMPUTER GAME





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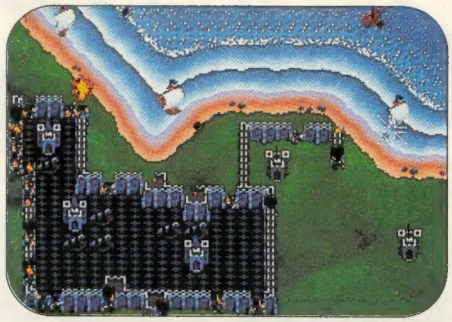

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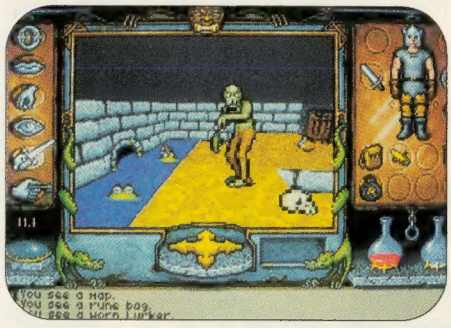

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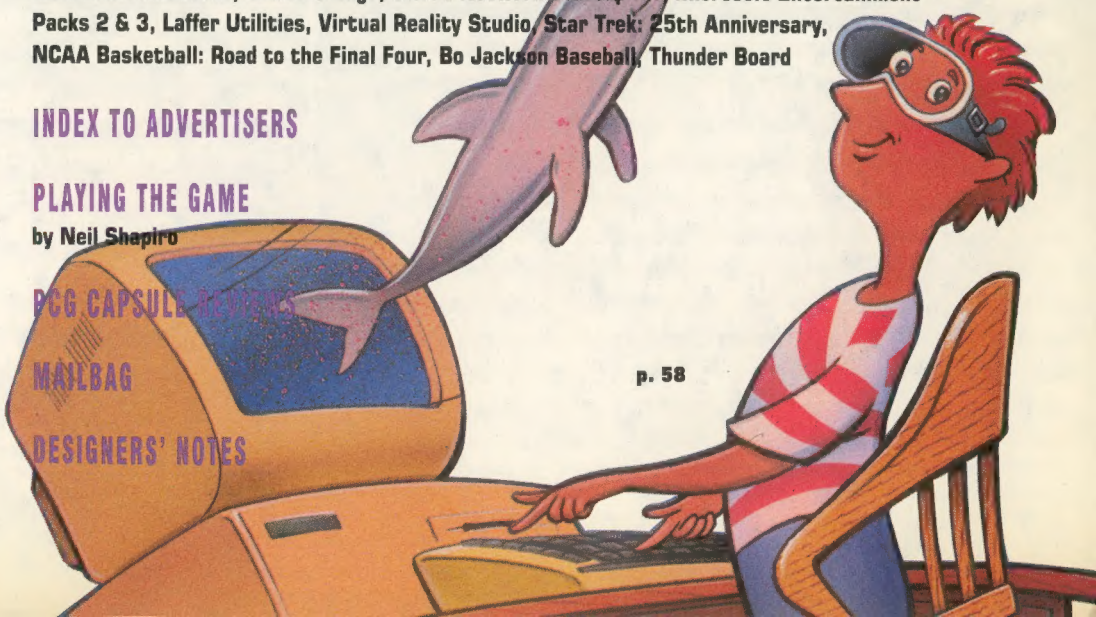

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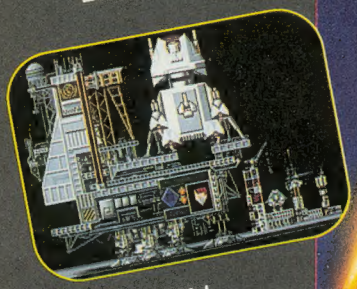

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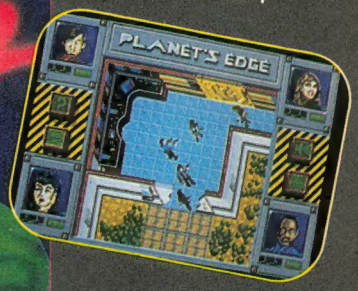

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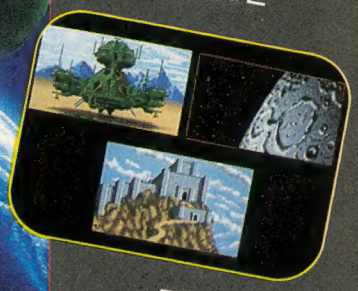

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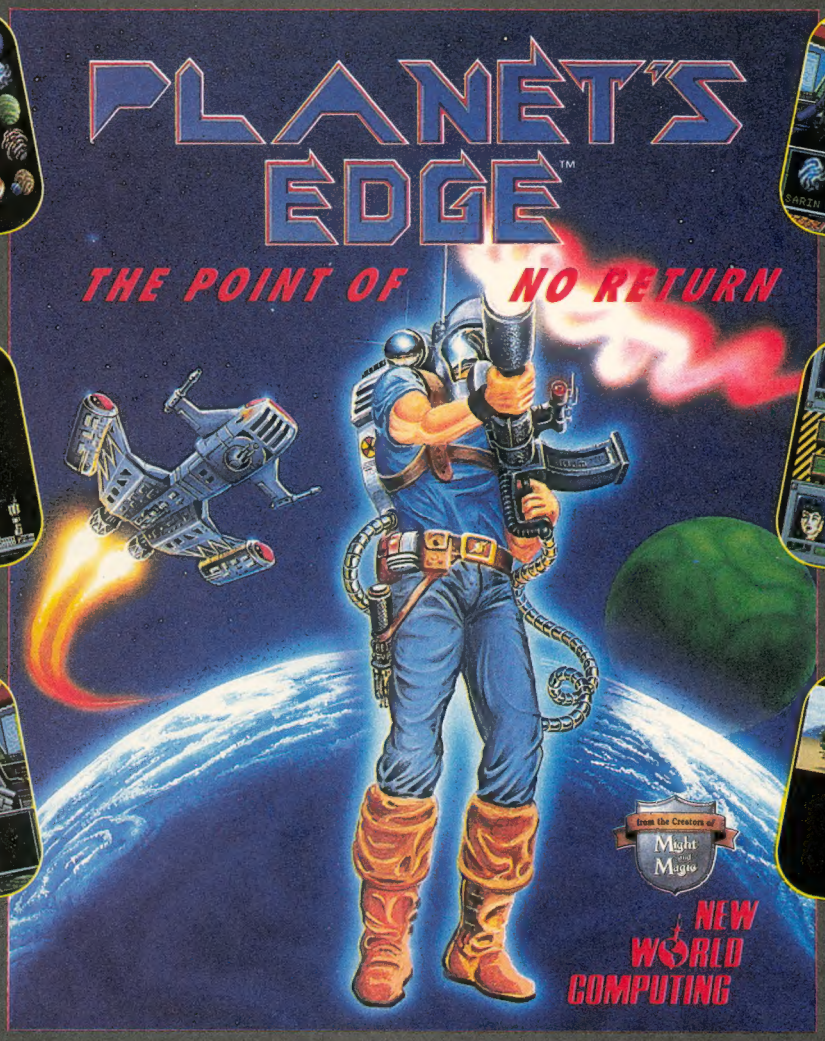

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EDITOR'S PAGE

KEEP MADONNA — WE'VE GOT CARMEN

When compact-disc players first started to appear in the mid-'80s, most of the titles available featured classical music. The crystal-clear CD sound was ideal for this genre. Also, record labels recognized that classical listeners demographically were more likely to invest in high-end CD players. But as the price of players began to drop, the number and variety of discs increased. Soon Mozart was joined by Van Morrison and Mötley Crüe.

The evolution of CD-ROM (compact-disc read-only memory) has progressed more slowly. When CD-ROM drives first appeared — about the same time as CD audio players — most of the software contained research material, much of it horrendously expensive. It's taken a while, but now CD-ROM is beginning to get more mainstream. What's finally driving the market is entertainment and education, not business. Audio CDs may feature Madonna, but now CD-ROM can lay claim to Carmen Sandiego.

But there's still a long way to go. Even though prices for drives are dropping, the number of PC owners who have bought one is still low. After all, software is only starting to trickle out in CD format. Fortunately, several companies have decided to answer the chicken-and-egg riddle, rather than letting it run its course. The publishers who currently offer CD-ROM software deserve a pat on the back for producing games that, right now anyway, don't seem to have a market big enough to warrant the effort.

PCGames also believes that CD-ROM technology addresses many of the problems the entertainment market faces. Most importantly, today's hot-shot game designers simply need the more than 600 megabytes a CD offers for sound, music, graphics, speech, and video. From a business point of view, material costs should come down because everything fits on one CD, rather than multiple floppy disks. And you can't copy a CD. CD-ROM pretty much kills piracy — but you benefit, too, because you won't have to put up with all that tedious off-disk copy protection.

Floppy-disk-based software isn't going away for a long time, so you don't have to rush out and buy a CD-ROM player tomorrow. But just as the compact disc slowly eclipsed tape and the vinyl LP as the standard medium for music, CD-ROM will become, over the next several years, the standard for entertainment software.

The Microsoft-endorsed MPC (multimedia personal computer) standard may help CD-ROM gain acceptance. Consumers can take some comfort in knowing that software companies, drive makers, and sound-board manufacturers are all working from the same set of established guidelines. As a long-term standard, however, MPC leaves many questions unanswered. (See "Multimedia Madness," p. 76 in this issue.) But Microsoft, hardware makers, and software developers should be able to address MPC's shortcomings, if their commitment is indeed long-term.

We hope MPC becomes more than a logo. CD-ROM is ready to take off, and a standard platform will make its trip a lot smoother.

— Dan Muse, Editor in Chief

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"Patton Strikes Back... could become a classic, like Crawford's groundbreaking *Eastern Front."*
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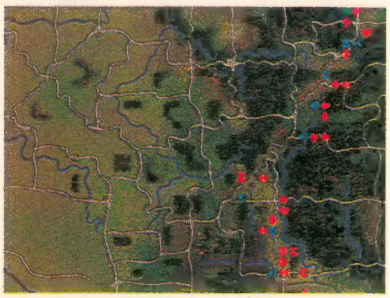

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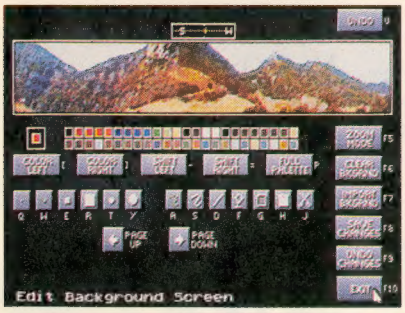

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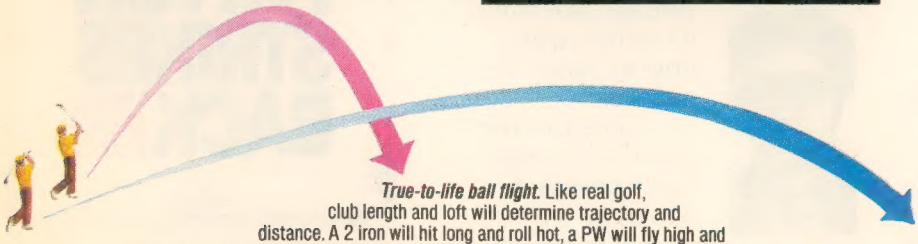

True-to-life ball flight. Like real golf, club length and loft will determine trajectory and distance. A 2 iron will hit long and roll hot, a PW will fly high and land soft. And don't ignore Mother Nature. Wind and terrain can alter ball flight and bounce.

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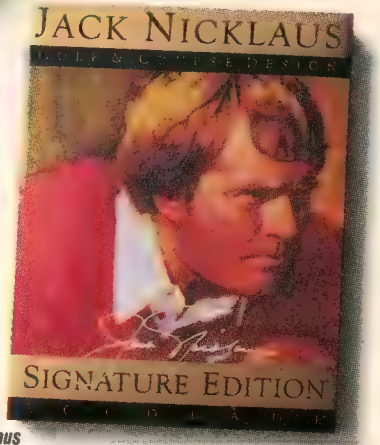

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THE GAME PRESERVE

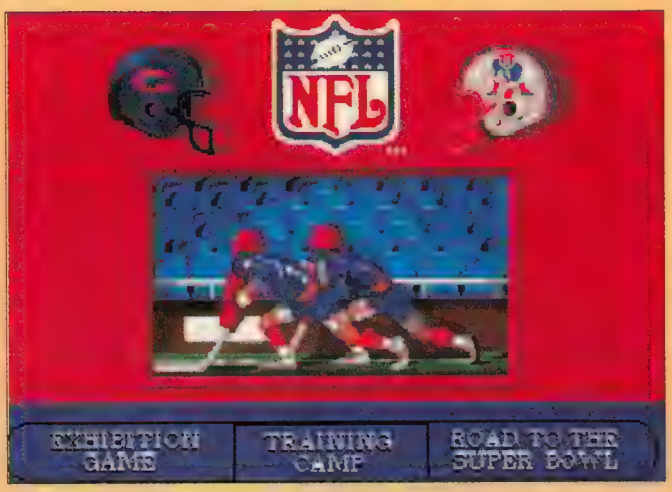
KONAMI KORNER

At last year's Winter Consumer Electronics Show, Konami (Buffalo Grove, IL) announced 17 new entertainment products. Is Konami slowing down? Perhaps. This year the company (and its software partners) showed only seven new titles, but who's complaining?

Konami has joined forces with the London-based Renegrade for three action/arcade games (prices unavailable at press time).

You may say you want fame, money, or Rachel Hunter, but we know what you really want — the same thing we all desire: immortality. If you can't afford to dabble in cryogenics, you may have to settle for playing **Gods**. As Hercules, you battle the forces of darkness in the streets, temples, labyrinths, and underworld of ancient Greece. To achieve immortality, you must work your way through four action-packed levels, each with three worlds filled with a variety of adversaries and intriguing puzzles.

In **Magic Pockets**, you play the role of the Bitmap Kid. You may be blessed with bottomless pockets, but several of your favorite possessions are missing, and the only way you can retrieve them is by exploring the world of Magic Pockets. You travel through four levels looking for lost toys and blowing away intelligent enemies, such as froggers, slimers, rockers, and hiders, along the way. Each level depicts a different environment: a jungle, a lake, a mountain, a cave. In each world, you must use the elements to affect your surroundings in different ways. When you throw a cloud into the jungle, for example, it bursts, causing plants to grow and creating new platforms.



It's the real thing: Konami's NFL Football.

In **The Chaos Engine**, a malfunctioning computer is distorting the fabric of time and space. A party of six must team up to destroy it. To do so, the party must survive four levels of dark forests, sprawling industrial workshops, a crumbling Gothic mansion in Victorian England, and more.

Gremlin Graphics and Konami have two entries in the PC games market. One lets you build a perfect world; the other lets you take part in a humorous adventure based on a 1957 horror flick.

If you had a barren planet, money, and the other necessary ingredients, could you build a perfect society? **Utopia** ($59.95) lets you find out. You lead your colony to desolate planets and attempt to foster a flawless society. To succeed, you must achieve a quality-of-life rating of 90 percent. To do so, you must make your decisions wisely. Do you want to spend money on weapons, social research, a new hospital, a tank factory? State-of-the art tanks and bombers may impress your friends, but they won't feed the masses. In addition to these difficult decisions, you must deal with ten alien races — each with its own cities, cultures, and levels of aggressiveness — who constantly challenge the survival of your utopia.

An alien race, having botched eight previous attempts to annihilate the human race, has discovered the ultimate **Plan 9 from Outer Space** (price unavailable at press time). This strange storyline makes for an entertaining plot in Konami's new graphics adventure. You must collect missing movie reels as you explore more than 90 global locations, including Washington, D.C., Brazil, China, and Australia. After you find all the reels, it's on to the editing room to splice them and piece together this full-length feature film. The game features digitized movie footage starring Bela Lugosi and Tor Johnson, with other original cast members as characters in the game.

Konami's **NFL Football** ($49.95) is officially licensed by the National Football League, which means that the game uses the actual logos and names from the 28 NFL teams — no Detroit Wildcats or San Franciso Gold Diggers here.

NFL Football lets you bring your team to training camp, then move on to exhibition games, play through a grueling 16-game league schedule, and finally contend for the Super Bowl crown.

If you think your team needs improving, you can

build better players by adjusting their collection of 16 attributes: intelligence, speed, endurance, throwing accuracy, kicking distance, and so on.

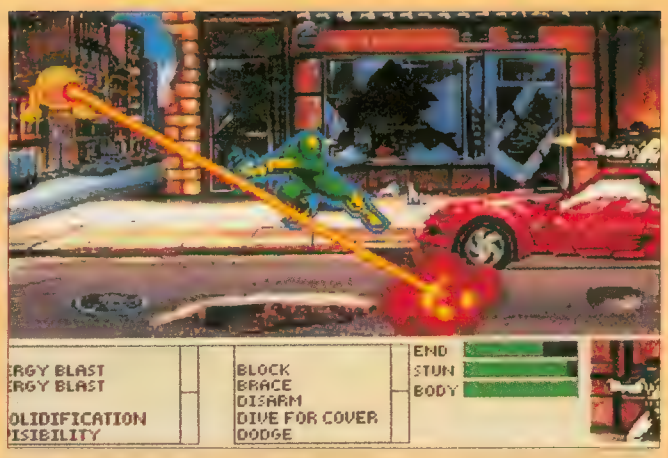
We know what you're thinking: You can improve your players in other areas by sacrificing intelligence — an underrated attribute of successful athletes. Our advice is this: Be careful. Konami tells us that if you lower intelligence too much, players may not perform some rudimentary tasks. Good luck winning the Super Bowl if your center keeps forgetting to snap the football.

The game provides a wide variety of both offensive and defensive plays from which to choose; if you want more, though, you can design your own with the *Play Editor*. And if at the end of the season you think your team needs an overhaul, you can draft new players or trade old ones.

NFL Football also features a VCR interface for replay mode; on-screen updates of games in progress and an end-of-game summary with comprehensive stats on both teams; and digitized sound effects and voices that duplicate crunching blows and referee calls. Depending on your experience and preference, you can allow for penalties, weather conditions, injuries, substitution, and player fatigue.

Konami also plans to release what it describes as "a revolutionary new kind of role-playing game." **Champions** ($59.95) is based around stories, rather than on wandering around a map. The multiple storylines are interwoven with a new character-interaction system. You choose the goals, methods, and attitudes for each interaction. For information, contact Konami at (708) 215-5100.

— **D.M.**



Konami's Champions: multiple storylines and new interactions.

A MULTITUDE FROM MICROPROSE

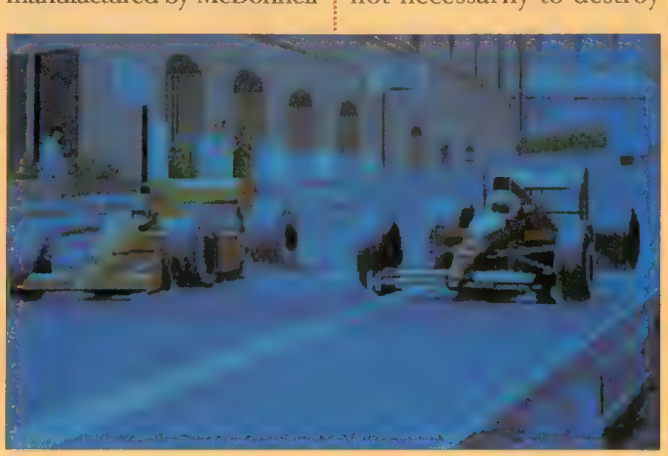
MicroProse (Hunt Valley, MD) plans to stay very busy expanding the scope of its product line in 1992.

Look for a unique jet-fighter flying experience in **Harrier**. In this first-person-view flight simulator, you're at the controls of the now-famous AV-8B Jump Jet manufactured by McDonnell Douglas and Rolls Royce. You'll use the jet's abilities to land and take off vertically and to hover as you fly campaigns in Hong Kong and southern China. MicroProse may also include Korea in the flight schedule. Look for Harrier to take off in October.

In **ATAC: Advanced Tactical Air Command** ($49.95), you take on the Columbian drug cartel. This game is part flight simulator, part role play, strategy, and tactics. You deploy jet aircraft against drug-carrying planes, or to destroy coca fields or support raids against drug lords. You can fly it yourself or leave the flying to your CPU. You take on four drug barons — not necessarily to destroy them but to stem the flow of drugs into the U.S. Killing reduces your overall score. Look for ATAC in December.

MicroProse has several projects on the drawing board, but slated for 1992 release. **Greens** ($59.95) is a golf simulator, featuring 3D landscaping. You can follow the flight of the ball from one of six camera options. **World Circuit** ($59.95) is a Formula One auto-racing game that lets you compete on all 16 championship circuits. All tracks are accurately rendered in 3D. **B-17 Flying Fortress** ($69.95) is an ambitious-sounding combat flight simulator. **Air Duel** will feature aerial combat; **Nightmare House** puts you inside a haunted dwelling. **Napoleon** is a historical strategy/role-play game about the famous French emperor; **F-22** is another jet simulator. **Task Force** offers naval strategy and tactics in World War II scenarios. **Johnny Crash** will be an animated adventure game. And, yes, **F-15 Strike Eagle III** will come winging your way this year, too. For more information, call MicroProse at (410) 771-1151.

— **W.N.**



Compete in championship auto races in MicroProse's World Circuit.

NEW ADVENTURES FOR PARAGON

Paragon Software (Greensburg, PA) is widely known for its hard-hitting (and good-looking) science-fiction action/adventure games, such as the MegaTraveller series. This year it explores new territory.

Spellbound: Challenge of the Five Realms ($59.95) is Paragon's first foray into fantasy. You play a young prince out to destroy an evil emperor in this epic role-play adventure.

The beautiful graphics images are done in a sort of classic "storybook" style. You must beat the evil ones with spells (without killing them). It's due in June.

Mantis ($69.95) is set in a futuristic outer-space environment, so it stays within Paragon's realm of products. But this is as much a combat-vehicle simulator as it is a space opera.

The 3D bit-mapped graphics images are a knockout. You fly the Mantis Experimental Fighter in 100 interlaced missions against the insectoid invaders. It's due in May.

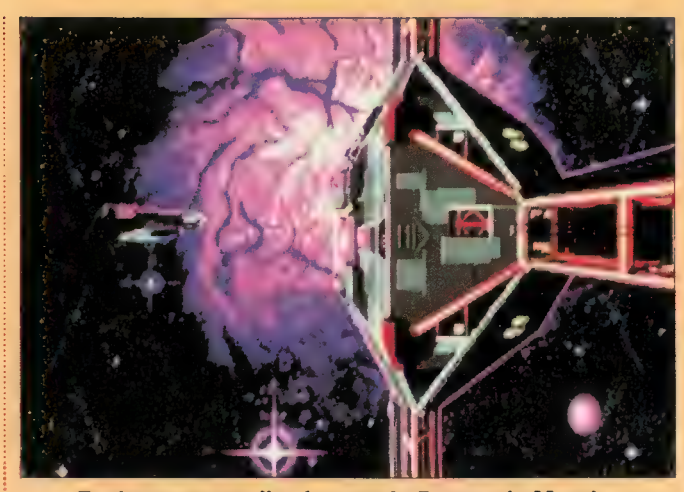
And for you MegaTraveller fanatics, get set for **MegaTraveller 3: The Unknown Worlds** ($69.95), due out in September. This time you get three scenarios: a rescue adventure, an ancient mystery, and a quest for revenge.

Each one has its own characters and plot possibilities. Also, no two games are the same. Each time you start a new one, the program randomly generates an entirely new universe, which you can make as large as you like.

For more information about Paragon games, call (412) 838-1166. **— W.N.**

ULTIMATELY ULTIMA

Origin Systems (Austin, TX) is going with its winning formulas this year.



Declare war on alien insects in Paragon's Mantis.

In **Ultima VII: The Black Gate** (price unavailable at press time), a malevolent being with enormous powers threatens Britannia, and this time you as the Avatar must use your sword-and-sorcery experience and master the arts of investigation and deduction to beat it.

This latest sequel makes several leaps forward in Ultima technology. A new display provides close-up and full-screen views of the lands and beings of Britannia; the interface will be totally mouse driven.

The game also adds pertinent keywords to your dialogue vocabulary as you learn them throughout the course of this new adventure.

Origin also plans to slap an *MP-13: For Mature Players* sticker on the box. Graphics representation of pain and death and some "evil" imagery are the reasons, but Origin's intent is to build strong emotional reactions into the storyline. Be prepared for the hardest-hitting Ultima yet by April.

Remember Ultima's great dungeon explorations? Origin discontinued them after Ultima V, but now they're back in force in **Ultima Underworld: The Stygian Abyss** ($79.95). Fantasy spelunkers can really get a faceful of dungeon doom here.

You're erroneously charged with kidnapping a baron's daughter, so you're thrown into the Stygian Abyss, the most dreaded dungeon in all Britannia. First-person-perspective game play and fine 3D graphics will bring this eight-level adventure to life.

You can discover 40-plus spells — and you'll need them all. (See the review in this issue, p. 111.) Step into the Ultima underworld in April.

New this summer, **Strike Commander** (price unavailable at press time) flies into your PC. This jet-combat simulator will take off with Wing Commander-inspired graphics. You play a crack mercenary pilot flying a fine line between right and wrong, profit and loss.

The view over your control panel is first person, as is that of many PC flight sims, but the bit-mapped graphics images are definitely one of a kind. A unique process that uses fractal images to generate polygon-style background graphics adds a nice touch to the program's overall smooth look.

Get in touch with Origin Systems at (512) 328-0282. **— W.N.**

JUST ADD POPCORN

Based on its previous success with movie themes, Capstone (Miami, FL) has announced four games with cinematic plots.

If you still haven't had enough of *Home Alone*, you may want to invest $29.95 in **Home Alone: The Computerized Coloring Book**. Kids of any age will find this paint program easy to use. It offers dozens of scenes from the movie, which you can color on your computer screen or print and color the old-fashioned way — with crayons. Included are the "after-shave" scene, the "Marv with the iron" scene, and many more.

Capstone has also announced a computerized coloring book based on **FernGully: The Last Rain Forest** ($29.95), an upcoming animated movie from Twentieth Century Fox. Add color to the enchanting world of Crysta, Pips, the Beetle Boys, and that brain-scrambled fruit bat Batty Koda. (That'll make more sense when the movie is released in April.)

Home Alone and FernGully require 512K and work with CGA, EGA, Tandy 16-color, and VGA systems. A mouse is also recommended.

American Tail ($39.95) is a graphics adventure based on Steven Spielberg's animated movies. The game stars Fievel Mousekewitz, a clever young cartoon mouse. Fievel takes on the cats and various vermin of New York City. Knowing that if he can make it there, he'll make it anywhere, Fievel heads west to foil the giant mousetrap built by outlaw cowboy cats. American Tail requres 640K and works with EGA, Tandy 16-color, and VGA systems. Mouse or joystick is optional (though a mouse seems more appropriate).

Capstone's fourth game is a graphics adventure based on Stephen King's novel and upcoming movie **The Dark Half**, starring Timothy Hutton. You take on the persona of Thad Beaumont in this chilling psychological thriller set in New England (where else?). The Dark Half requires 640K and works with EGA, Tandy 16-color, and VGA systems. A mouse or joystick is optional. For more information, contact Capstone at (305) 252-9040. **— D.M.**

JACK'S BACK

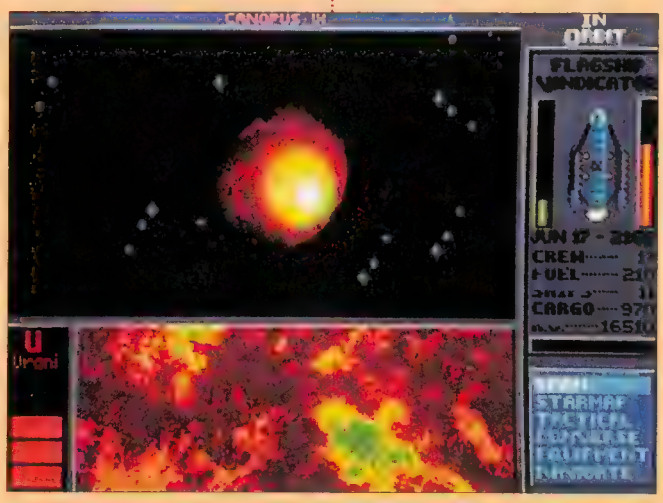
Accolade (San Jose, CA) has five new titles lined up for 1992, ranging from golf's greatest to celebrities who play for Peanuts.

Just like the Golden Bear himself, Jack Nicklaus' computer golf games just keep getting better. **Jack Nicklaus' Golf & Course Design: Signature Edition** (price unavailable at press time) includes two 256-color VGA courses — English Turn Golf Club in New Orleans and Sherwood Country Club in Thousand Oaks, California; a new course designer that lets you play instantly; the ability to customize your game to match your favorite pro's style of play; and a horizontally repositioned *Power Bar* to allow a wider view.

Accolade's newest Jack Nicklaus game: better and better.

After earthly pleasures such as golf, venture into 23rd-century star clusters in **Star Control II: The Ur-Quan Masters** (price unavailable at press time). According to Accolade, Star Control II combines the strategy and action elements of the original with sophisticated science-fiction role play. In The Ur-Quan Masters, you travel through hyperspace to explore and liberate more than 500 star systems, each with a full complement of planets and moons. The game uses 256-color graphics, 3D rotating planets, and fractal-generated planet surfaces.

In this sequel, you're called to investigate what happened to Earth and the Alliance of Free Stars and aid them against the Ur-Quan. You command a huge reconfigurable flagship, which can launch entire squadrons of mixed-race combat vessels and boasts enough firepower to destroy an entire fleet of Ur-Quan Dreadnoughts. Don't let this heavy-duty arsenal make you overconfident, though. You face increasingly difficult challenges as you atempt to defeat the Ur-Quan and their vicious battle slaves.



It's war in hyperspace in Accolade's Star Control II: Ur-Quan Masters.

Accolade's **Grand Prix Unlimited** (price unavailable at press time) was designed under an agreement with the publishers of *Road & Track* magazine. This simulation features the leading Formula One cars racing through 3D terrain. To add to the realism, weather conditions are also included. The Formula One teams, including Ferrari, McLaren, and Williams, are accurately modeled in terms of power curves, drag coefficiency, and so on. You can also customize your ride by adjusting steering, suspension, wing angles, gear ratios, and more.

Grand Prix Unlimited also includes a utility that lets you design your own courses or modify existing ones with square tiles. After you map out the course, you can line it with objects such as signs, people, and buildings.

Ernie Eagle continues his journey in higher education in **Spellcasting 201: The Sorcerer's Appliance** ($69.95). Ernie decides that joining a fraternity would help his reputation. Of course, joining a frat isn't that easy. First he must complete a series of hazing tasks, such as pinning a moustache on a statue high atop the campus clocktower. You discover that the tasks assigned by the pledgemaster aren't all that dangerous, compared with the evil conspiracy brewing at the university. As with Spellcasting 101, you can play in either *Nice* or *Naughty* mode.

For the young gamer,

Accolade has announced its first children's program — **Snoopy's Game Gallery** (price unavailable at press time), featuring Woodstock, Charlie Brown, Linus, and the rest of the Peanuts gang. The Gallery includes three games: *Snoopy's Puzzle*; *Charlie Brown's Memory Game*; and *Woodstock's Twin Game*. For more information, contact Accolade at (408) 985-1700. **— D.M.**

An old story: good versus evil in UbiSoft's Celtic Legends.

IT'S MAGIC

Ubisoft (Sausalito, CA) offers a mix of magic and strategy in **Celtic Legends** ($49.95). Celtica was a prosperous place, where magic was taught as a precise science. But when the venerable Magician of Avalon died, the conflict between his two top pupils, who also followed opposing philosophies, turned to violence. The forces of good and evil align themselves with the two magicians. Now it's time for you to fight for your beloved Celtica. But you fight with more than conventional weapons; you also call upon magic spells and portents.

Futuristic graphics, 250 independent characters, more than 1000 animated objects, and surprises at every turn await you in **The Koshan Conspiracy** ($49.95). Members of the Confederation of Galaxies are concerned with the increasing threat of the Koshan — who have a virtual monopoly on the precious material Echiatone. The confederation has hired the Bureau of Astral Troubleshooters (B.A.T.) to intervene. A top B.A.T. agent is the victim of a murder attempt, so the agency sends in a new agent, Jehan Menasis — that's you.

In UbiSoft's third '92 release, **LightQuest** ($49.95), the powerful sorceress Zora has banished the sun and plunged the land of Arke into everlasting darkness. Choose your character — Warrior, Sprite, or Magican — and join the fight to return light to Arke.

LightQuest is actually three types of games in one. Choose the Warrior, and you play an arcade game; pick the Sprite, and you play and arcade/adventure game; select the Magician, and you play an adventure. For more information, contact UbiSoft at (415) 332-8749. **— D.M.**

TREASURES AND TALES

This spring, S.S.I. (Sunnyvale, CA) will release **Treasures of the Savage Frontier** ($49.95), sequel to its number-one best-selling Advanced Dungeons and Dragons Gold Box hit Gateway to the Savage Frontier. Naturally, players can transfer their characters from Gateway to Treasures, or they can create new adventurers. Characters can begin at the fifth level and advance as high as the 11th. This game gets personal as players build relationships and become romantically involved with nonplayer characters. And character movement and combat are affected by weather, as well.

In **Tales of Magic: Prophecy of the Shadow** ($49.95), S.S.I. begins a new series of single-character fantasy role-play adventures. With his dying breath, your mentor Larkin sends you on a quest to find the Magic Council and inform them that the legendary Prophecy is beginning to unfold. This tale takes place above and below ground in the fabled world of Auric. Call S.S.I. at (408) 737-6800. **— W.N.**

THE GAMETEK SIX

Gametek (North Miami Beach, FL), a company more widely known for its video-cartridge software, has announced a half-dozen disk products, ranging from fantasy role-play games to preschool "edutainment" software.

Daemonsgate I: Dorovan's Key ($64.95) is the first installment in a trilogy based on the adventures of Captain Gustavus, who resides on the mythical continent of Elsopea. Gustavus and his traveling compatriots are searching for a mystic who can help them save Elsopea from an army of Daemons. Even characters you don't control are rational and intelligent and continue to function off screen.

Go on — admit it. You watch *American Gladiators* on TV once in a while. Now you can do more than just watch the action, you can join it with **American Gladiators** ($39.95), the computer game You can take part in competition such as *The Joust*, *Powerball*, *Atlasphere*, *The Wall*, *Assault*, *Human Cannonball*, and *Eliminator*.

In May, look for **Gadget Twins** ($39.95). In this two-player adventure, you battle a variety of adversaries as you try to recover the Gem of Gadget Land, stolen by Thump. Slowed by trickery and a collection of mechanical gadgets, you gather new weapons and develop your own mechanical abilities.

How do you judge the historical accuracy of prehistoric-theme games? We've all played games about futuristic societies as well as the medieval period, but we've never heard of any games based on the Stone Age. **Humans** ($39.95) takes a lighthearted look at Stone Age man and woman struggling to survive. You

control a small tribe of prehistoric people who must master developments such as inventing the wheel and discovering fire.

On a different note, Gametek has released two products for preschoolers: **Fisher-Price Picture Dictionary** ($39.95) and **Fisher-Price Creativity Kit** ($19.95). The Picture Dictionary helps youngsters learn basic vocabulary. Graphics images come to life with full animation and digitized sound effects, letting kids with little or no reading skills run the program without adult assistance. The Picture Dictionary also contains a *Teacher Kit* for educators.

The Creativity Kit features traditional Fisher-Price play environments, such as *Farm House* and *Little People Airport*, re-created on screen through a point-and-click interface. A *Parent Kit*, prepared by a child psychologist, will be available to help promote parent/child interaction. For more information, contact GameTek at (305) 935-3995. **— D.M.**

THE BAD SEED REDUX

The Dark Seed (price unavailable at press time) from CyberDreams (Woodland Hills, CA) is a science-fiction adventure based on the imagination of H.R. Giger, whose designs were the inspiration for Alien, Alien III, and Poltergeist III.

You control the actions of Mike Dawson, a science-fiction writer who has just purchased a Victorian mansion on the outskirts of a small town. But Dawson has bought more than a home; he's bought into an evil world of biomechanical creatures. During a nightmare, they implant an embryo in Dawson's head. If he can't destroy the creatures in three days, the embryo will hatch and replace Dawson, and the first in a new generation will be born to ravage the earth. For more information, contact CyberDreams at (818) 348-3772. **— D.M.**

Intelligent characters mark Gametek's Daemonsgate I: Dorovan's Key.

SIX-PACK TO GO

Notebook-computer users are serious, strictly business, and concerned only with spreadsheets, word processors, and database managers. Not!

Getaway ($39.95) from Epyx (Redwood City, CA) includes six quick-play strategy games for the laptop-toting executive (or wannabe). They're optimized for notebook computers' LCD (liquid-crystal display) screens. For mouse users, Getaway provides a mode to help correct blurring (*submarining* in notebook parlance).

The six games can be played in 5- to 10-minute periods. *Cascade* challenges you to create multiple, high-scoring, simultaneous, and sequential "cascades" of dice. You earn points for straights, four of a kind, and so on. In *Stuffin the Briefcase* you must determine how to pack objects effectively; the game offers 63 levels, so you won't master it overnight.

Futuristic nightmare in a Victorian setting: CyberDreams' Dark Seed.

Totem is a logic puzzle game — with more than 20 difficulty levels — set in the Pacific Northwest. And if you like word games, you'll be happy Epyx has tossed in *Word Salad*. In this game you must find words hidden in an array of letters. It features 32 levels and up to 600 words per level.

If you appreciate the classics, you'll enjoy *Solitaire* and *Dominoes*. Solitaire comes in both Klondike and Las Vegas varieties. Dominoes includes a tutorial on this often-misunderstood game. You can play Five-Up and Seven-One-Spin against one, two, or three of nine different computer opponents.

Getaway supports CGA, Hercules, EGA, and VGA graphics modes. For more information, contact Epyx at (415) 368-3200. **— D.M.**

CAST A SPELL

In Asciiware's (Foster City, CA) **Spellcast** (price unavailable at press time), Stonehenge is revealed as the bridge between earth and seven mystical domains. This bridge, however, presents danger. As the rift between Valoria and our mundane world increases, so grows the evil influence of six warring Lord Wizards. Only through the practice of Spellcraft can they be defeated. Your job is to restore the balance between our world and the other domains by composing

powerful spells. For more information, contact Asciiware at (415) 570-6200. **— D.M.**

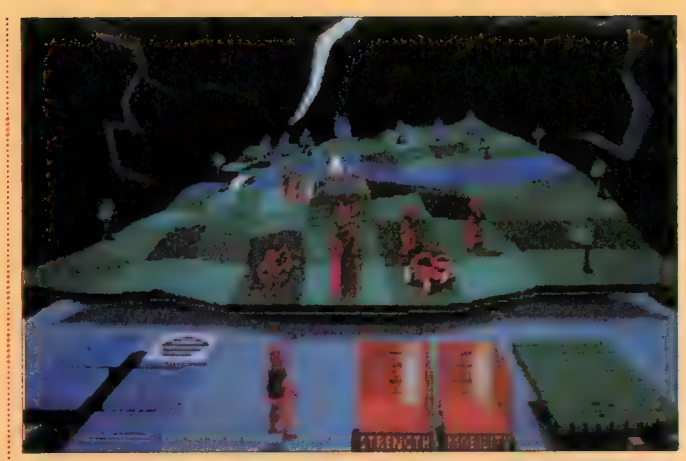
DO A THREE-SIXTY

If you enjoy the heat of battle, Three-Sixty (Campbell, CA) has three new games worth fighting for. **V for Victory** ($59.95) puts you in charge of the Normandy invasion during World War II. As the American commander, you must overcome German resistance to take the Cotentin peninsula and the vital port facilities at Cherbourg. If you think the grass is greener on the other side, you can be the German commander and defend Cherbourg by chasing those Yankee dogs back into the sea.

V for Victory employs a point-and-click interface and lets you control as much or as little of the action as you want. The computerized *Staff Assistant*, introduced in Three-Sixty's Harpoon, can plot naval-unit movement, maintain a front line, execute realisitic attacks, plan artillery, air, and naval fire support, and allocate supplies. You can use any or all of these options, and elect to have entire games played under the computer's control.

Theatre of War ($49.95) is designed to represent the many faces of war throughout history — from Roman and feudal periods to the hi-tech military hardware of the 1990s. The game is played on a board modified with terrain, texture, obstacles, and elevations in a 3D-filled polygon environment.

Three-Sixty has teamed up with Game Designers Workshop, the pre-eminent publisher of paper-rules war games, to produce **Patriot** ($59.95), based on land warfare. The first 20 scenarios are set in the Persian Gulf. You take on the role of a major general at the division level. You have enough authority to call for air support, as well as the flexibility to get down to the company level for on-the-field observation and decision making. For more information, contact Three-Sixty at (408) 879-9144. **— D.M.**



Three-Sixty's Theatre of War: 2500 years of bloodshed.

MICHAEL JORDAN AND MORE

Michael Jordan is practically unstoppable on the basketball court. Can the PC contain him? Electronic Arts (San Mateo, CA) wants to find out. **Michael Jordan Flight** (working title, $69.95) is a basketball game that also serves as the début of EA's new Video-Sim graphics generator. Video-Sim lets Jordan Flight use full-motion video animation to produce flight-simulator-style graphics of His Airness. The game can be three-on-three or one-on-one hoops or a three-point shootout. Expect to see Jordan's marquée moves in full force. Other players featured in the game will also be based on real-life basketball players (unidentified at press time).

Some nice extras are also in the works. In addition to an instant-replay feature, a "personal camera" will capture all your best moves for a post-game show. Additionally, a video-edit lab will let you create highlight films from your game, including multiple camera angles. Get ready, PC gym rats, it's due out this summer.

Powermonger ($49.95), the long-awaited Populous-style game, casts you as the leader of a displaced tribe eager to conquer an uncharted land composed of 200 territories. In this piece of geopolitcal gamesmanship, you help your people create technology, invade other lands, and build villages. Better feed them, too, or they'll wander off to find sustenance themselves. Powermonger's due out in June.

And speaking of Populous, here's your chance to play God again. **Populous II: Trials of the Olympian Gods** ($59.95) is due out in September. With more than 30 new animated powers, you'll be twice the deity you were in the original version. This one's set in ancient Greece.

As one of the many sons of Zeus, you try to impress the great god by defeating 32 of the most powerful deities, including Poseidon, Apollo, and Prometheus. You can pick your deity's personality, strengths, and appearance. Of course, you must also keep your populace happy with fertile land, prosperous towns, and mucho manna.

Global Effect (price undetermined at press time) is the first program born of the new EA/Millennium software alliance. This is a world-strategy simulation for up to two human players and one computer participant. Your goal is to create a successful civilization by building cities, finding resources, exploring continents, developing technology, and keeping an environmental balance, too. There are 64,000 locations to explore. Look for Global Effect in May.

Also due in May is **Car and Driver** ($59.95). If that sounds like the title of an automotive publication, you're right. EA has teamed up with *Car and Driver* magazine to put PC drivers behind the wheels of ten high-performance cars, including the Porsche 959, Shelby Cobra, 1957 Ferrari Testarossa, Toyota MR2, and Eagle Talon. Burn rubber on ten roadways based on actual U.S. Geological Survey data.

The Lost Files of Sherlock Holmes: The Case of the Serrated Scalpel (price undetermined at press time) puts you in the role of the world's most famous detective. The murder of an actress is credited to Jack the Ripper, but Scotland Yard has some doubts. The police must turn to London's master sleuth for help. In addition to Holmes' keen deductive techniques, you also have the help of your friend Dr. Watson as you attempt to expose the real murderer. You can expect to encounter a variety of colorful characters, including Detectives Lestrade and Gregson, Old Sherman, Toby the spaniel — and maybe even the infamous Moriarty.

Other new EA products include **Heroes of the 357th** and **Birds of Prey**, reviewed in this issue. For more information, contact Electronics Arts at (415) 571-7171. **— W.N.**

SOUND OF GRAVIS

If you want your games to sound as good as they look, Advanced Gravis (Burnaby, British Columbia) has announced the **UltraSound** card (under $200), which offers true 16-bit CD quality. UltraSound accommodates up to 32 synthesized voices or up to 32 digital voices. It's AdLib and Sound Blaster compatible.

If you enjoy making your own sounds as much as listening to them, UltraSound features recording/sampling with variable sampling rates from 1K to 44.1KHz in both mono and stereo. The card also features full mixing of external CD-audio, digital-audio, synthesizer, microphone, and line inputs for high-quality sound reproduction. The UltraSound has connectors for MIDI (*musical instrument digital interface*) in, out, and through, making it easy to use your own MIDI files.

For more information, contact the company at (604) 434-7274. **— D.M.**

JUST THE STATS

While some gamers are impressed by 256-color screens, others are more concerned with statistical accuracy. **B-Ball Pro Basketball** ($29.95) is designed for the latter group.

According to B-Ball's creators, this game is the most statistically accurate sports simulation available. Players will perform just as they do in real-life action, with some variation based on your coaching decisions and abilities. Make defensive switches; recognize hot shooters; double-team players; take advantage of the three-point shot; put on the full-court press.

If you want graphics, B-Ball isn't for you. If you love stats, though, this sports simulation may be worth a shot. For more information contact B-Ball Pro Basketball (South Euclid, OH) at (216) 291-9243. **— D.M.**

INTERPLAY FANTASY

Yes, Interplay (Santa Ana, CA) has more Battle Chess games. Due this spring, **Battle Chess 4000** (price unavailable at press time) completely redoes the game's graphics with clay-mation-style techniques. And that's not all that's new — the chess algorithm is stronger, too.

For multimedia aficionados, **Battle Chess MPC** ($79.95) uses capacious compact-disc format to feature CD-quality music, digitized character voices, a 30-minute animated tutorial, and 100 megabytes of graphics (256 colors and 640-by-480 resolution). There are 30,000 possible moves and ten levels of play.

If you haven't read Tolkien's classic fantasy trilogy, The Lord of the Rings, yet, you've got only two months until the second volume, **The Two Towers**, appears in PC format (price unavailable at press time). It's basically a continuation of the story, with a slightly tweaked point-and-click interface and a new automapping feature. You're leading your multiracial Middle Earthean party against the wicked Lord Sauron's machinations to capture the One True Ring, and now the Evil Wizard Saruman is on your trail, too. For more of the storyline, don't just play the game —read the books, too.

Amiga gamers are already hip to **Out of This World** ($59.95), but this innovative polygon-graphics-based game is due out for the PC this spring. Top-of-the-line flight-simulator-style graphics images thrust you into a fantastic dimension. It's an action/adventure game in which you outwit or outfight monsters across a weird alien landscape. The game's innovative use of polygons generates real-time, rotoscoped animation mixed with cinema-style zooms, pans, close-ups, and scaling a real movie "feel."

Omar Sharif is a pretty good actor, but he's a great bridge player. This world-renowned bridge master lends his expertise to **Omar Sharif on Bridge** ($59.95). You can play or learn; set up hands to practice slams and no-trump hands or work on weaknesses in your game. You can even explore what-if scenarios. You get VGA graphics and full sound-board support. There's even digitized voice, so you'll hear Omar congratulate you on a good play or suggest an alternative strategy if your game needs fine-tuning. For more information, call Interplay at (714) 545-9001. **— W.N.**

IN A QUANDARY

MECC (Minneapolis, MN) is a company with a long history of high-quality education products. Now in **The Secret Island of Dr. Quandary** ($59.95), MECC moves to entertainment. Don't let the fun fool you, though; there's plenty of learning going on behind the scenes for kids aged 8 and up.

You find yourself trapped on an enchanted island; you must use your wits to escape the secret world of the mischievous Dr. Quandary. His intricate games are designed to keep visitors lost; maps and mazes, a multitude of mind-boggling puzzles, and graphics and 256-color digitized photos promise players of all ages long hours of challenge and entertainment. For more information, contact MECC at (612) 569-1527. **— D.M.**

TOP GUN

FLIGHT SIM

Build the big one with our on-the-edge expert.

By Cameron Crotty

By this point, your WWI Fokker Triplane wing assembly should be complete and the glue dry. Check the struts carefully and make sure that the wing fabric is stretched tightly and smoothly across all surfaces. Before you join the wings to the fuselage, mount the enclosed 17,200-pound-thrust Pratt & Whitney J-75-19 turbojet to the rear of the aircraft. Place the engine carefully on the supports provided and connect all hydraulic hoses and electrical connections (see Fig. 45-a). *— Instructions, p. 35, part 9.9.8, "Final Assembly"*

Parts. Pieces of parts. Parts and more parts. You could cobble together your own strange flying machine from a dozen Revell kits, matching pieces to parts, modern technology to obsolete airframes. Or you could take the easy route and follow me through an imaginary game of flight-simulator Tinker Toys. We'll pinpoint the best of the best and see if we can come up with something better.

Why? Because you're sick and tired of the "yeah, buts," that's why. "Yeah, but I'd really rather be flying a Spad 17 over Verdun." "Yeah, but this package doesn't give any historical perspective." "Yeah, but the program doesn't zip on my old PC."

Red Baron offers atmosphere that's straight out of the movies.

Stop whining and pay attention. Strip a feature from a simulation here, tack on an option from a simulation there, fuse them all into one terrific flight model, and you've got something that'll drag you into the air like an F-16 on afterburners. Sure it's imaginary, but for a moment, you can ignore the "yeah, buts."

We can't fly it, we can't sell it, we can't even see it, but nevertheless, we're going to build the ultimate flight sim right here in glorious, imaginary Technicolor — all from three simulators that really exist and that push the technology-and-design envelope in vastly different directions.

Checklist

"So, when do you want to go?" *— H.G. Wells*

The smoking-gun question with flight simulators is "What do you want to fly and when do you want to fly it?" Would you rather duke it out with the Luftstreitkrafte at 5000 feet or do you want to lock on a MiG-21 at 15,000? When purchasing a flight simulator (or building the ultimate), your choice of the era and the theater is paramount.

For straight-out-of-the-movies atmosphere, **Red Baron** is unbeatable. From the slightly sepia-toned digitized graphics to the sputtering of a biplane in midflight, Red Baron wraps a silk scarf around your neck and drags you back to the Great War.

You can fly individual missions, but the heart of the simulator is *Career* mode. Spend a few days flying for the British or soaring for the Germans, and you'll find yourself in a rhythm different from that of any other flight simulator. Along the way, you'll read the headlines as great pilots are born and die, and follow the tide of battle back and forth. You'll get promoted and earn medals, and as new planes come off the factory floor, you'll get a chance to try them out — if you're good enough.

In the whistling roar of battle, where quick decisions mean the difference between seeing an explosion and being in one, Red Baron forces you to remember that your craft is little more than a wood and fabric kite. A moment's inattention to air speed or direction can mean an unrecoverable stall or an agonizingly slow crawl back to the reconnaissance balloon you're supposed to defend. Add machine guns that jam and carburetors that freeze, and you've got a simulation redolent with sweat, blood, and victory. (For more information on Red Baron, see the review section, October 1991, p. 70.)

Furball Fever

"Never mind the tower, I'll worry about the tower! You just worry about those fighters on our tail!"

— Luke Skywalker

Atmosphere is great, but if a flight simulator takes you for a magic-carpet time-travel ride only to dump you into a clunky, frustrating simulation, what's the point of all the window dressing?

That's why we'll steal the fastest, smoothest, slickest-

THUNDER BOARD. PC GAMES LIKE YOU'VE NEVER HEARD THEM BEFORE.

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Introducing Thunder Board™ from Media Vision. No other sound card out there today can soar to such incredible heights. Or plunge to such awesome lows. And Thunder Board's dynamic filtering means dynamite sound. Higher fidelity. Bigger ka-booms. And more bang for the buck.

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In addition, with Thunder Board you get three free PC action game samplers: Nova 9,™ Lemmings™ and Lexi-Cross.™ Plus, free Thunder Master™ software that lets you record and edit sound files with a Wave Form Editor.

And Thunder Board is fully compatible with all the newest PC games. Plus 100% compatible with AdLib™ and Sound Blaster™ applications—to support the largest library of games possible. What's more, Thunder Board has breakthrough features to let you break all the sound barriers. Like twice the Digitized Audio Playback and Recording Capability at an explosive 22 kHz—compared to the competition's puny 11 kHz.

Also, you get a squadron of powerful extras. Like a Joystick Port. Headphone Jack. An 11 Voice FM Music Synthesizer that lets you score music as well as score points. And a Power Amplifier with built-in Volume Control, so you can have yourself a real blast—without blasting the neighbors.

So take off—for a dealer near you. And go from static to ecstatic. Because, with Thunder Board, hearing is believing.

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Media Vision, 47221 Fremont Boulevard, Fremont, CA 94538. 510-770-8600, FAX: 510-770-9592

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Circle 40 on Reader Service Card.

looking flight model around for our *PCGames* Ultimate Flight Simulator — and that's **Chuck Yeager's Air Combat**. (For details, see the review section, November 1991, p. 72.) Even on a 286 PC, graphics images are smooth and bright; on a 386, Yeager offers a genuine treat. No matter what the platform, Yeager takes you through three major eras of combat in the skies.

Strap in and punch up a P-51 Mustang for yourself, then stack the odds with as many of Hitler's finest as you care to take on. In seconds, you'll be in the middle of a pitching, swooping furball of a combat scenario that has you white-knuckling the stick and bobbing your head to dodge tracer bullets.

In addition to its seamless animation, Yeager has a few well-thought-out features that help make you feel as if you're actually in an airplane, instead of staring at a monitor. The most important is the *45-degree Up View* key. Most simulations use the function or the number keys to let you look down, left, right, and straight up; to understand what Yeager does differently, sit in your chair and imagine that you're in an airplane. You look left or right out over your wing or back over your tail. You can even look straight down. But now imagine that the only way you can look up is to look straight up. Push your head as far back as it will go and lock it there. Pretty useless, isn't it? Relax and bring your head back to the directly forward position. Now, tilt your head up about 45 degrees and hold it. Instead of looking directly over and a little behind your plane, you're looking above and a little ahead of it — the perfect position to track a pesky Me-109 through a tight turn.

Switching among views is just as effortless, so you spend more time convincing yourself that you're Captain Crashland, the fearless scourge of the skies, rather than Parachute Pete, the ever-present victim who sways constantly beneath a canopy.

Of Romance and Reality

"When the going gets real, the real turn pro."

— with apologies to Hunter S. Thompson

Or, when the going gets real, the really weird hop into **Falcon 3.0** for a state-of-the-art trip.

Spectrum was kicking butt in the late 1980s with an earlier version of Falcon when the Air Force came along and offered the company a chance to write the software for its desktop simulators. Several years later, Spectrum HoloByte brought that experience back to you and me, Jane and Joe consumer, and created one of the most realistic combat-flight simulators available.

How realistic? According to Spectrum HoloByte, if you have a 486DX or a fast 386 with a math coprocessor chip, you can play with a flight model that's only millimeters from sporting a *Top Secret* stamp. (For more information on this simulation see Sneak Peeks, December 1991, p. 53.)

Now we've got power, power, power in our Ultimate Flight Simulator. Outside loops at Mach One? No problem. We've got scads of instruments, lights, and readouts at our fingertips. We've got detailed situational awareness data from AWACS. We've got brutally sophisticated and astonishingly varied weaponry, such as the AIM-9M heat-seeking missile. We've got the ability to fire from five miles away, so the other guy will never know what hit him.

Sure, the plane is fun to fly, but what makes Falcon 3.0 truly great is its flavor for reality. In the real world, bogies are never brightly colored or easily identifiable. Forget to check your IFF (*identify friend or foe*) radar, and you could wind up making dog meat out of one of your buddies. Go easy on that flight stick, or you're going to find an uncomfortable lack of space between you and the ground. These are just a few of the features that make Falcon 3.0 a simulator, not just another arcade game.

Done Deal

Thanks for joining us on a tour of *PCGames'* lab. Our new Ultimate Flight Simulator package won't be coming to a store near you, and the list price will be well into four digits. We won't be showing it at the Consumer Electronics Show in Chicago this summer, and you won't be receiving press releases or beta copies, either. But you can dream, can't you? ❑

PRODUCT INFORMATION

Chuck Yeager's Air Combat
Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171
$59.95
640K IBM PC, Tandy, or compatible
10MHz 286 or faster recommended
CGA, EGA, MCGA, VGA
supports AdLib, CMS, Covox Speech Thing, Tandy DAC, Sound Blaster sound boards
off-disk copy protection

Falcon 3.0
Spectrum HoloByte
2061 Challenger Drive
Alameda, CA 94501
(415) 522-0107
$69.95
IBM PC, Tandy, or compatible
10MHz 286 minimum
640K RAM
extended memory recommended
EGA, VGA
supports AdLib, Sound Blaster, Roland sound boards, Tandy sound
requires hard-disk drive

Red Baron
Dynamix/Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654
$59.95
640K IBM PC, Tandy, or compatible
minimum 10MHz
VGA
separate 256- and 16-color versions available
supports Roland, AdLib, Sound Blaster sound boards
off-disk copy protection

In Medieval Germany, reality is more horrifying than fantasy.

Step back to 15th Century Germany—a feudal society in which the Emperor is powerless. Private wars among nobles are rampant. And men call on alchemy and saintly intercession to shield themselves from plague, witchcraft, and the swords of their enemies.

Darklands™ sets computer role-playing back 500 years, as it plunges you into this authentic and sinister setting.

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Each quest combines the other-worldly excitement and intense realism you can only get from MicroProse—the leader in simulation software.

So look for ***Darklands*** where you buy computer games. Because this March, the Middle Ages return.

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ENTERTAINMENT • SOFTWARE

For IBM-PC/Tandy compatibles. For the latest information on the release dates and availabilities, call MicroProse Customer Service at (410) 771-1151 . . © 1991 MicroProse, Inc.
180 Lakefront Drive,
Hunt Valley, MD 21030.

Darklands™

Heroic Adventures in Medieval Germany

Circle 16 on Reader Service Card.

ROLE CALL

FANTASTIC WORLDS

Point-of-view role-playing games claim to give you a hero's-eye view of adventure, but are these worlds as real as the ones in your imagination?

By Bernie Yee

Realistic fantasy — if you're an avid role-playing gamer, chances are you don't think that's an oxymoron. But just what qualities must a role-playing adventure have to take you past your PC screen and make you part of another world?

Some would say it needs a "point-of-view (POV) perspective." Point-of-view depicts your trek from your vantage point. It's a three-dimensional, first-person perspective.

But not everyone agrees. Plenty of solid, top-down games — such as the **Ultima** series, **Lord of the Rings**, and the sometime-to-be-released **Magic Candle II** — have wide appeal on the market. It's a fact, though, that most major role-play game (RPG) makers now are aiming for the most technologically advanced graphics extravaganzas ever to strap on a cuirass — and that means point-of-view entertainment.

But don't be fooled: This perspective doesn't necessarily provide a total

Elvira II boasts excellently rendered VGA graphics.

dungeon experience — especially when game designers forget to include some other important elements. Let's shed some light on the dungeon.

Examine Your Choices

Game designers labor to make POV games visually realistic, so that you'll feel as if you're inside a paladin's plate mail, for example, not outside looking in. You could actually think of POV as the first step toward virtual reality. Each incremental improvement in POV brings us one step closer to virtual-reality entertainment. (For more information on virtual-reality technology, see "Virtually Yours," p. 64 in this issue.) But no publisher has managed yet to put it all together and provide a totally realistic (as realistic as dragon-infested worlds get) gaming environment.

After all, a point-of-view game should immerse you in a total experience managed from your computer alter ego's perspective. That means it must hand you the same amenities that an adventurer would have. The game's world must come complete with realistic inhabitants, basic laws of physics and magic, and the passage of time. Action should mimic real life, too. It's unlikely an adventurer would take notes on creatures he or she met along the way, or map dungeon hallways, for example, as many of us have had to do. We've yet to see it all come together in a single game.

Eye of the Beholder and **Bane of the Cosmic Forge** were two of the first PC POV dungeon-crawl games. Like all first efforts, they have their faults — neither offers automapping, even though RPGs such as **Dragon Wars** included the feature long before. These games also lack a real-world feel, because they restrict you to a dungeon. You'll find no towns, no forests — just cold stone floors. Still, Bane'sdesigners had the right idea. They actually took an item's physical attributes into consideration. When your fairy tries to heft a two-handed lance, it has to deal with the lance's weight and size, too. (For more information on both games, see Reviews, September/October 1991, p. 52.)

Second generation POV games fare somewhat better. **Eye of the Beholder II: Legend of Darkmoon** expands the setting to include both outdoor and indoor environments, but it still doesn't have an automapping feature. In fact, if you look at Eye of the Beholder II critically, you'll note that nothing in it advances the POV genre. Its difference is that it hosts a "bigger is better" attitude that shows up in the dungeons, the monsters, and the levels themselves. (For details on this product, see Reviews, p. 111, in this issue.)

Another recent POV game is **Elvira II: The Jaws of Cerberus**. It boasts a huge area for you to explore and hundreds of items for you to examine, but it still constrains you to a single location — a movie studio. Its interface

is packed with information and the graphics images are in excellently rendered VGA, but the Horror Soft (the UK design team that created the Elvira series) engine is conceptually similar to the Eye of the Beholder model. You'll see different design choices, but nothing radically new. In fact, its magic system lacks coherence: You can find yourself bereft of objects late in the game after using them earlier to mix spells. (For details on this title, see "Roles on Request," January/February 1992, p. 22.)

Crusaders of the Dark Savant, though not released yet, promises more. It corrects Bane's weaknesses by including VGA graphics images, automapping capabilities, towns to explore, and creative approaches to nonplayer-character encounters.

Still another approach to POV gaming is the slick and sophisticated **Might and Magic III**. With this title you have a whole world, complete with automapping capabilities, plenty to explore, and a slick, well-planned iconic interface. For all its attractions, though, the game feels self-centered. It's like a vast amusement park where you're the only guest. Inhabitants don't have lives of their own (a feature on which the latest Ultima installments justifiably pride themselves), and the entire milieu seems quite artificial. (For details on Might and Magic III see the reviews section, December 1991, p. 62.)

Eye of the Beholder, Bane of the Cosmic Forge, and Elvira suffer from the same problem, but because you're tucked away in a corner of a world, you don't notice the limitation quite as quickly.

Another POV-esque RPG that's making a comeback is Activision's **MechWarrior**, which has found new life on GEnie, thanks to the programmers at Kesmai. The GEnie version, which is still in beta testing, is a multiplayer game set in the BattleTech universe. You play a MechWarrior out to earn fortune and fame in your robot-tank cockpit. Your view reveals a filled-polygon, fully animated, truly 3D world.

Constrained to EGA, the multiplayer version has the spirit of true role play, in that other players can control other 'Mechs at the same time. Although released three years ago, this may be the most prescient of POV role-play games, because it presages Origin's first effort to provide a point-of-view dungeon game.

Close, But Still Not Quite

Current efforts incorporate more, but still not all, of the features of a perfect POV role-play game. **Ultima Underworld: The Stygian Abyss** sports a fascinating virtual-reality-like perspective, in which you can move around a dungeon and watch it pass by in smooth animation. Using technology similar to that of Origin's Wing Commander, Underworld provides true 3D by using bit-mapped, not filled-polygon, graphics images. Because the game is literally a virtual representation of a dungeon, you don't get the intricate wall sets of, say, a Might and Magic III, but it's a small price to pay when you can actually turn your head, look up, or glance down. The entire experience is a visual quantum leap above the competition. But even Underworld suffers from the dungeon-only mentality — your entire journey is limited to a dungeon, which is unsatisfactory no matter how vast the catacombs. And unlike Might and Magic or Eye of the Beholder, in which parties of six or eight are commonplace, Underworld limits you to a single character, the ubiquitous Avatar. (For more information on this game, see Reviews, p. 111 in this issue.)

Although it may be too early to make the final call (I reviewed a beta version), it's probably safe to say that Underworld is a technological ground breaker. It's the first real advance, rather than being a simple refinement. Other, near-revolutionary elements infused into Underworld include an automapping feature that lets you take notes right on the map, and its own version of the now-popular point-and-click operating system. Interestingly enough, Origin seems to have paid attention to the fantasy world by giving items real-world physical attributes: You can smelt rock ore into metal, for instance, then forge it into a sword.

But all this comes at a price. POV games such as Underworld can soak up as many as 15 megabytes of hard-disk space, and beg for a fast computer, such as at least a 386SX. (Compare those hard-disk requirements to those of games such as Might and Magic III, Elvira II, and Eye of the Beholder II, which settle for 7 to 9 megabytes of space.)

These system requirements will get worse. Speech may be only a novelty now, but once CD-ROM drives make an appearance in numbers, they may well become the basis for the next step toward even more realistic POV games. Imagine a game in which other characters not only look at you, but talk to you. Certainly a version of Underworld that lets you climb mountains, walk into buildings, skulk against alley walls, and wade through streams may require more disk space than is practical. CD-ROM lives for such applications.

Even without multimedia, compact-disc-based games, and megabytes of sound files, you can expect to see POV role-playing-game storage equipment keep climbing. One relatively inexpensive way to fight back is with **Stacker 2.0**, an on-the-fly compression utility that can effectively double your hard-disk-drive space. Because most RPGs aren't disk-intensive, you shouldn't notice any performance degradation.

The Missing Link

There are certainly inherent limitations to providing a realistic fantasy world. But perhaps the most important missing link between today's RPGs and tomorrow's masterpieces hinges on what

writers call *plot*. That's what most of today's games lack. After all, what is your character's motivation — fortune and glory?

Most RPGs hand you your motivation as you read the manual. But reading about a plot just doesn't cut it. You must travel though the game's world yourself and discover the dark goings-on that will lead you to adventure. Before the computer-graphics and programming whiz kids lay down another line of code, they should read some literature (and not just fantasy stories, either), take some writing classes, or even just collaborate with people who have. Only then will we really be able to look out of our heroes' eyes onto worlds that seem almost as real as the ones in our imaginations. ❑

PRODUCT INFORMATION

Bane of the Cosmic Forge
Sir-Tech Software
P.O. Box 245
Ogdensburg Business Center
Suite 2E
Ogdensburg, NY 13669
(315) 393-6644
$59.95
640K IBM PC, Tandy,
or compatible
requires two floppy drives
or hard-disk drive
monochrome, CGA, EGA,
VGA, Tandy 16-color
supports AdLib,
Sound Blaster, Sound Master,
Voice Master sound boards

Crusaders of the Dark Savant
Sir-Tech Software
P.O. Box 245
Ogdensburg Business Center
Suite 2E
Ogdensburg, NY 13669
(315) 393-6644
$69.95 5.25" or 3.5" (single)
$79.95 5.25" and 3.5" (dual)
640K IBM PC, Tandy,
or compatible
requires hard-disk drive
EGA
supports AdLib,
Sound Master, Sound Blaster,
Voice Master sound boards

Dragon Wars
Interplay Productions
3710 South Susan
Suite 100
Santa Ana, CA 92704
(714) 549-2411
(800) 969-GAME
discontinued/limited quantities
may be available from mail-
order sources

Elvira II: The Jaws of Cerberus
Accolade
550 South Winchester Blvd.
San Jose, CA 95128
(408) 985-1700
$69.95
640K IBM PC, Tandy,
or compatible
286 or faster recommended
EGA, VGA
supports AdLib,
Roland MT-32/LAPC-1,
Sound Blaster sound boards
requires hard-disk drive
mouse recommended

Eye of the Beholder
Strategic Simulations, Inc.
675 Almanor Avenue
Suite 201
Sunnyvale, CA 94086
(408) 737-6800
$49.95
640K IBM PC, Tandy,
or compatible
CGA, EGA, VGA, MCGA
(256-color), Tandy 16-color
supports AdLib, Sound Blaster
sound boards
mouse recommended

Eye of the Beholder II:
The Legend of Darkmoon
Strategic Simulations, Inc.
675 Almanor Avenue
Suite 201
Sunnyvale CA 94086
(408) 737-6800
$59.95
640K IBM PC, Tandy,
or compatible
DOS 3.2 or later
requires 286 or higher
EGA, VGA, MCGA
supports AdLib, Sound Blaster
sound boards
requires hard-disk drive
mouse recommended

Lord of the Rings
Interplay Productions
3710 South Susan
Suite 100
Santa Ana, CA 92704
(714) 549-2411
(800) 969-GAME
$54.95
640K IBM PC, Tandy,
or compatible
DOS 2.1 or later
CGA, MCGA, EGA, VGA,
Tandy 16-color

MechWarrior:
Multiplayer Battletech
Kesmai
available for downloading
from GEnie
401 North Washington St.
Rockville, MD 20850
(800) 638-9636

Might and Magic III
New World Computing
20301 Ventura Blvd.
Suite 200
Woodland Hills, CA 91364
(818) 999-0606
$59.95
640K IBM PC, Tandy,
or compatible
EGA, VGA, Tandy 16-color
supports AdLib, Sound Blaster
sound boards,
Tandy 3-voice sound

Stacker 2.0
Stac Electronics
5993 Aveneda Encinas
Carlsbad, CA 92008
(800) 522-7822
(619) 431-7474
$149
IBM PC, Tandy, or compatible
DOS 3.0 or later

Ultima Underworld:
The Stygian Abyss
Origin Systems, Inc.
P.O. Box 161750
Austin, TX 78716
(800) 999-4939
$79.95
IBM PC, Tandy, or compatible
DOS 2.1 or later
requires 286 or higher
386 recommended
requires 550K RAM free,
1MB EMS
requires hard-disk drive,
14MB free
VGA
supports AdLib,
Roland MT-32/LAPC-1,
Sound Blaster sound boards

Wasteland
Interplay Productions
3710 South Susan
Suite 100
Santa Ana, CA 92704
(714) 549-2411
(800) 969-GAME
discontinued/limited quantities
may be available from mail-
order sources

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Tony La Russa's ULTIMATE BASEBALL

TONY LA RUSSA'S ULTIMATE BASEBALL comes with the stats of yesteryears' legendary superstars. You can also enter the numbers for any player on any pro team — or even those on your local league. Choose to play a game with top-notch arcade action, or let the computer play through a 162-game season in a few hours!

▶IBM

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SPORTS PAGE

A FAN'S NOTES

The PC screen is the playing field for many an armchair athlete, but does the available sports software really measure up?

By Wayne Kawamoto

What's the biggest controversy to hit the sports world? Steroid-stocky Ben Johnson? No way. John McEnroe's temper? Yeah, sure. Instant replay in the NFL? Hardly. *Tastes great! Less filling!* That's the one that wins by a mile.

Put the same foggy thought to PC sports games, and you'll come up with a slogan almost as endearing: *Great action! No realism!* The latest sports games call themselves *simulations*, but can computer games translate the essence of a sport to the PC screen? Let's take a look at some of the contenders to see whether they can truly bring a sport's raw action and strategy successfully to the home computer.

Different Strokes for Different Folks

PC sports games come in four flavors. The first, which is the least appetizing, is concocted of unrealistic arcade-style sequences that rely on simple sports themes. The second in the taste parade is the arcade/action title that's based on real sports. The third is the strategic coaching simulation that comes packed with stats. The fourth, and certainly the most palatable, is the game that mixes the two ingredients — arcade-style action and statistics. The type of game you favor is, of course, a personal choice.

4D Boxing features abstract athletes, but realistic action.

Sports themes have always been popular with arcade-game designers. Years ago, we could blame unrealistic action on a paucity of computing power. But with today's powerful hardware — most homes feature a 386SX with a megabyte or more of memory — games can be far more sophisticated.

In other words, unrealistic sports games *choose* to be that way. Often mutations from the territory that gave us Godzilla, they enjoy titles such as *Cyber Robotic Combat Polo 2000*. Leave them to the joystick jockeys — they're sports in name only.

The arcade games with realistic sports action bring at least the feeling of a sport's raw power to the PC. **Jimmy Connors Pro Tennis Tour** is a good example of this variety, because it's an electronically derived version of tennis that looks much like the real thing.

In Pro Tennis Tour, the ball moves naturally — complete with ground shadow — on a variety of playing surfaces. Your computerized opponents are intelligent players who take every opportunity to work the net and smash the ball.

Pressing the keyboard may not feel like swinging a racket, but much of the rest of tennis — the action, strategy, and shot placement — is realistic enough to pin it with the moniker *simulation*.

4D Boxing is another example of an arcade/action game infused with realism. This may seem like a strange statement when you first see the game, because it uses polygon-fill graphics images that make the pugilists look like blockheads, not Mike Tyson. The boxers may look abstract because of the polygon-fill graphics, but paradoxically, they move so smoothly that they seem almost as real as actual boxers.

And 4D Boxing gives you a realistic, through-the-eyes view of the action, too. Look your opponent in the eye, stand toe to toe, and when your opponent punches, you'll see that glove comin' right at ya.

Although the company has made some stunning achievements, 4D Boxing still has some room for improvement. In fact, controls don't match punches with the right and left hands, and the boxers don't move forward when throwing the blows.

Despite these drawbacks, 4D Boxing is the best sports game for delivering that you-are-there feeling. (For more information, see Reviews, January/February 1992, p. 57.)

Although a computer game can re-create a boxing match adequately, can it match the brisk excitement of the Winter Olympics? It's doubtful. **The Games: Winter Challenge** has outstanding graphics images and smooth animation, but the action feels more arcade-like than realistic.

The diverse downhill events — alpine skiing, luge, and bobsled — feel too much alike. Cross-country skiing is a tedious knock-your-joystick-back-and-forth endurance event. Although it's the best Olympics program created so far, Winter Challenge is only a respectable attempt to capture the feeling of the events. (For details, see Sneak Peeks, January/February 1992, p. 43.)

Golf seems to have made the translation to the computer exceptionally well, perhaps because swinging the club isn't all there is to the sport. **Links: The Challenge of Golf**, the premier golf simulation, features outstanding 256-color graphics images, true-life animation that mimics the real thing, and pain-stakingly detailed re-creations of courses.

You swing with a C-shaped power bar just tough enough to master that it makes you feel like an accomplished golfer. (For more information, see the review section, October 1991, p. 50.)

Purity of Essence

Games built on pure statistics aren't for everyone; they're meant for the diehard sports purist — the fan who memorizes ERAs of pitchers who use Old Spice and knows the number of passes completed by quarterbacks who drink Gatorade and like *Gilligan's Island*. (Win one for the Skipper?)

NFL Pro League Football is a detailed coaching simulation based on NFL statistics. Stats are the emphasis of this game, because the average graphics images depict flat action on an overhead view of the field. Call the play and the computer takes over, showing you the outcome graphically. (For details, see Reviews, September/October 1990, p. 68.)

In some respects, this brain-over-brawn approach pays better homage to the topic than an arcade/action game. When coaches and their staffs use PCs to fine-tune the real game plan, why don't you do it, too? For most PC sports players, though, pure strategy simulations are too cerebral. Sports are action, and the simulations that go the distance combine statistics and arcade elements. These hybrids are usually the most entertaining, offer the most realistic response, and drag you fastest into the re-creation.

Solid samples of action/stats combinations include **Mike Ditka Ultimate Football** and **Playmaker Football**. In both games you coach fictional teams, design and call the plays, and then, if you want, control key players, arcade style. Playmaker shines in its ability to design plays and coach teams, but the mouse interface you use to direct the players' movements is clumsy.

Ditka displays plays from a striking angle above the field, giving you a TV-like perspective that's comfortable for almost any armchair quarterback. Partially because of the view, partially because of its feature set, Ditka wins honors in both graphics and action. Football simulations such as these let you experience the mental gymnastics of coaching and the rush a player feels when he finds the hole or hits the open receiver. (For details, see Sneak Peeks, November 1991, p. 43.)

Earl Weaver Baseball was the first baseball game to merge action and statistics successfully. The sequel, **Earl Weaver Baseball II**, doesn't strike the same balance as the original, because its outstanding statistics outshine its lackluster action. This lack of balance becomes even clearer when you pop for the add-ons, such as the **Commissioner's Disk II**, which lets you create managers, fantasy leagues, and additional ball parks, and the **MLBPA Player Stats and Manager Profiles**, which puts major-league stats in the game.

In contrast, Earl Weaver II's field graphics images are distracting, and the animation is jerky and out of proportion with the backgrounds. (For details, see Reviews, January/February 1992, p. 59.)

Bo Jackson Baseball doesn't match the statistical detail of Earl Weaver Baseball II, but it does provide excellent baseball action and coaching choices. The graphics and animation are elegant, but it, too, fails to deliver equally well on both action and statistics.

Can PC baseball games deliver the thrill of base stealing, the fatigue of pitchers' duels, the ecstatic crack of a bat? Yes, but only a reserved yes. A management game such as Earl Weaver II makes you feel as though you're in the dugout making the decisions, but action-oriented baseball software simply feels arcade-like — fielding, batting, and pitching on a keypad are a long way from the real thing.

Until now, there haven't been any PC basketball games that could claim title to simulation, at least not with a straight face. But **NCAA Basketball: Road to the Final Four** is a breakthrough in PC roundball. Road to the Final Four combines fast-break action with coaching strategy.

You coach by calling the shots, but the action is more removed than in an arcade game. Rather than control a player with a joystick, you order him to zig-zag, drive for the basket, or shoot. If

Mike Ditka Ultimate Football gives you great action and a TV view.

he can, he will. Road to the Final Four features realistic passing, and you can pick from several defenses as you guard the basket.

This game works because it's so much like watching a televised game. Still, it's not perfect. The learning curve is steep, and the ambitious graphics images present some problems — you can't tell when a basket is made, for example. (See Reviews in this issue, p. 134.)

ABC's Wide World of Sports Boxing has some decent action, but it emphasizes a boxer's career — the deals with promoters and trainers, the politics of professional judging — instead of body blows. That's not to say that you can't throw a punch or two. You have excellent control over punches, and the boxers' momentum in the ring seems more realistic than in 4D Boxing. Animation is detailed but choppy, the graphics images are excellent, the action is exciting. (See Reviews, p. 92.)

In a Perfect Sports World

Today's sports games vary in their success. The best contain a blend of action and strategy. The worst are unrealistic.

Compared to today's big-league titles, yesterday's sports software is nothing more than T-ball. If the trend continues, tomorrow's sports entertainment software will have sharper graphics images, smarter computer opponents, and, best of all, more-realistic action. ❑

PRODUCT INFORMATION

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(408) 286-7074
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Earl Weaver Baseball II
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San Mateo, CA 94404
(415) 571-7171
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$29.95 Commissioner's Disk II
$19.95 1990 MLBPA Player Stats & Manager Profiles Disk
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640K Tandy
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joystick optional
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4D Boxing
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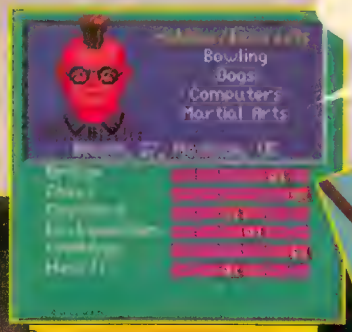

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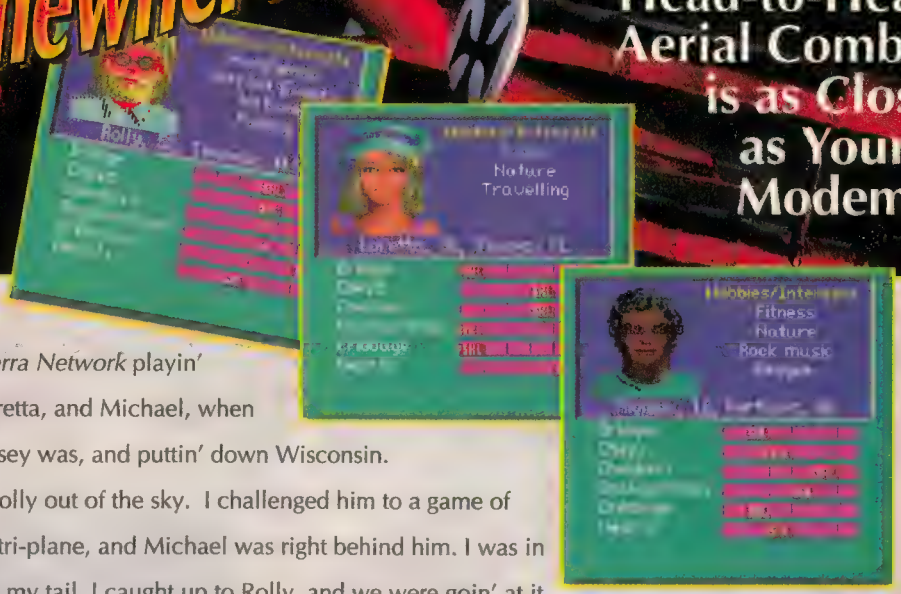

I'm tellin' ya, it all started with a bridge game. I was on *The Sierra Network* playin' with my regular buds, Rolly, Loretta, and Michael, when Rolly started sayin' how cool New Jersey was, and puttin' down Wisconsin.

I knew my only choice was to blow Rolly out of the sky. I challenged him to a game of *Red Baron.* Rolly took off in a Fokker tri-plane, and Michael was right behind him. I was in the air in a flash with Loretta covering my tail. I caught up to Rolly, and we were goin' at it hammer and tongs. Loretta came screamin' in from below, and I was, like, way bummed, because I wanted to blast Rolly myself. But suddenly Rolly pulled a slip-turn, choked his engine, and was all over Loretta like a bad haircut. She was history. It was just me and him. We were in tight, climbin' all the while. That sucker could turn on a dime, but my bi-plane was fast and mean. He almost got me, though. I was chasin' him when he spun around and went for me. Thinkin' fast, I climbed up, like I was runnin' away. He got excited and went for me. I spun hard to the right, and got him in my sights. I punched more holes in him than New Jersey has turnpike exits. I watched him spin out of sight, belchin' smoke and flames. Teach *him* to call me a cheesehead.

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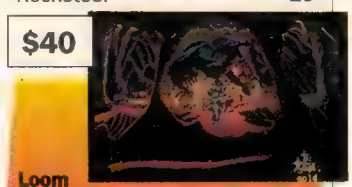

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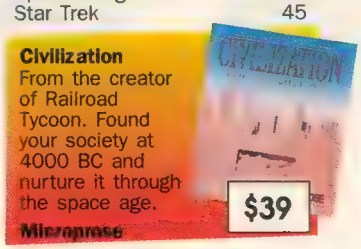

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TO HELL AND BACK

Here's a sampling of war games that go easy on the rest of us.

By Peter Olafson

War is hell. And war games are purgatory. Oh, they're definitely easier under the cold eye of the computer — the machine enforces the rules, assumes the calculations that have always interrupted board games, provides an ever-willing opponent, and leaves the tabletop general greater freedom to scheme and play.

Even so, these games leave a good deal of the detail work to you. You're in charge of apportioning replacements, assigning air strikes, and accruing and positioning reserves, headquarters, supplies, and so on.

War-game purists probably love this strategic chipped beef for exactly that reason. These people get to put their fingers on every little trigger. But for those of us whose love of detail is a bit more diluted, the satisfaction of completing a turn is rather like the satisfaction of completing a spreadsheet. The best thing about being done is that you're done.

Mercifully, there's been a move afoot in recent years to spare war gamers the drudgery of detail — one that lets gamers point first and ask questions later. One title that falls under this description is SSI's **Waterloo**. It lets you type in plain-English commands (which are then sent as messages to your generals) and provides a full 3D perspective on the battle.

No Greater Glory's interface makes the game a joy to play.

Quantum Quality's **The Perfect General** is another example of this type of war game. It's so easy to use it'll make your mouse roar. War is hell, but war games like this are just a devilishly good time.

Two recent additions are Broderbund's **Patton Strikes Back**, which is designed by Chris Crawford, and SSI's **No Greater Glory**, a Civil War game designed by Ed and Patricia Bever.

Neither game is exactly simple. You'll play long and hard before you get the hang of either. No Greater Glory is a real spider web of conflicting demands — economic, political, diplomatic, military — and the computer opponent in Patton kicked my behind across the Ardennes from both sides at the higher levels.

But each is blessed with an interface so transparent — almost idiot proof — that playing is an unalloyed joy. Commands are either on screen for the clicking or about as far away as your mouse. Results come quickly and are easy to understand. If you like, the computer can help you out with puzzling tasks, such as setting up air strikes and moving up new recruits. And it's possible to play while you learn, and learn while you play.

Take a look at Patton Strikes Back. In this division- and brigade-level game of Nazi Germany's final desperate thrust in the West during the winter of 1944–45, you issue orders simply by dragging a unit along the path to its destination. You can change a unit's mode — attack to defense to mobile — and its facing with a keypress or a pick from a menu. If you want to see where a unit is bound, clicking on it sends it charging merrily down the path you've plotted, while its ID, current strength, and readiness appear at the bottom of the screen.

Beyond all that, Patton Strikes Back is just fun. The action takes place on a ringing VGA screen that does credit to the game's Macintosh origins. The units are arrows when on the march, beefier arrows when attacking, and comma shaped when defending.

But what other war game throws up a black-and-white newsreel with real war footage (complete with digitized cannon fire and clanking tank treads) when you take a town or beat back an attack?

The Germans take Clervaux, and it makes the 5 o'clock news. I like that a lot. Why should we have to wait until the end of the game for the glory — especially if, when you play the German side, the headlines are going to be tough to come by? There's a little reward here for each little success, and those little pats on the back can keep you going.

Patton Strikes Back can also be seen as a learning tool. I'm more in favor of fun for fun's sake, but I was

tickled by Patton's well-written on-line encyclopedia of Battle of the Bulge background and anecdotes. And I suspect that parents who can't stomach the idea of their children playing war games might buy that notion, too.

The Personnel War

No Greater Glory may not be as spiffy as Patton Strikes Back — it's in CGA/EGA, sound issues only from that parrot cage in back of your machine, and you need to study the 109-page manual to really succeed — but don't let those things put you off. This mouse-driven game is so blithely playable that I was able to get in several less-than-successful games in happy ignorance before I even bothered to dip into the rules.

Patton Strikes Back has a free-flowing system. That means that when you're not pumping in orders, units on both sides move along at their own pace. By contrast (and of necessity), the strategic-level No Greater Glory is a more traditional war game, being broken into several phases such as civil affairs, mobilization, strategic movement, and the campaign, where troops do the fighting.

This sounds like a mouthful, doesn't it? Well, it isn't. The game rolls along as though on wheels. It's easy to switch among the eight regions on the map. It's easy to summon information within the game. (Although I wish the manual had an index.) It's easy, finally, to know what you're doing. Okay, okay, the computer seems to have a really good idea what it's doing, but your expertise will come in time.

Besides, it's almost as if you have to try to fail to go wrong in this game. Part of your job — as either Abraham Lincoln or Jefferson Davis — is to choose a cabinet and the envoys to Britain, France, and the peace talks with the other side. Your appointees offer advice if you threaten to do something goofy, and the program will frequently give you a chance to rethink a policy or assignment if it has ruinous consequences.

This delegation of authority is an especially nice feature. You have control over naval production and the level of recruitment — provided Congress will buy it — but you don't handle your armies in detail. You get to tell them where to go, but that's about it. After that, the generals you've assigned these armies implement your orders according to their own talents. (Each is rated for ability and initiative.)

Indeed, you're quite removed from the fighting, but you do have the opportunity to see detailed reports of results. Your key military task is picking the right man for the right job.

Of course, your generals are sensitive subroutines, and if you wound one psychically by awarding him too small an army, he'll lose esteem and you'll lose support in the general's part of the Union. Everything you touch in No Greater Glory is bound to have an impact elsewhere. If you're not careful, this can turn quickly into a personnel director's nightmare. It's a continuous dance with damage control.

Beyond the Niche

Games such as Patton Strikes Back and No Greater Glory succeed in good part because their user interfaces make them child safe — they sand down the hard edges and blunt the sharp points as they turn the manual into a guide, not the sole font of information. The result lets you sort out the finer points of something you suspect you already know. You can focus less on the mechanics and more on just winning.

That's going to be welcome to a lot of people. When you bring home a new game, do you read the manual first or play the game? Board games demand some book work. Computer games, like it or not, are more often played right out of the box. It's about time designers understood that. These two packages are war games, with an emphasis on *games*, for the career soldier and the civilian consultant. It's not just a niche anymore (or it's potentially a much larger one).

I don't want to make this sound too much like a new trend. There have always been a few war games for the rest of us — others that come quickly to mind are Dan Bunten's Modem Wars and Command H.Q., and Interstel's Empire — from pretty much the same cluster of people.

Indeed, you could argue that this new-found ease of play is simply the long-overdue extension of a trend that started in the fantasy role-play arena with games such as Dungeon Master and Eye of the Beholder. Either way, it's about time. Let's fight, eh? ❑

PRODUCT INFORMATION

No Greater Glory
Strategic Simulations Inc.
675 Almanor Avenue
Sunnyvale, CA 94086
(408) 737-6800
$69.95
640K IBM PC, Tandy, or compatible
CGA, EGA

Patton Strikes Back
Broderbund Software
500 Redwood Boulevard
Novato, CA 94948-6121
(800) 521-6263
$59.95
640K/10MHz IBM PC-AT
or compatible
DOS 3.0 or later
requires 3MB free on hard disk
VGA
supports AdLib, Sound Blaster,
IBM PS/1 sound boards

The Perfect General
Quantum Quality Productions
1046 River Avenue
Flemington, NJ 08822
(908) 788-2799
$59.95
640K IBM PC, Tandy,
or compatible
EGA, VGA
supports AdLib, Sound
Blaster sound boards

Waterloo
Strategic Simulations Inc.
675 Almanor Avenue
Sunnyvale, CA 94086
(408) 737-6800
$59.95
512K IBM PC, Tandy,
or compatible
EGA

CHILD'S PLAY

ON SPEAKING TERMS

Kids' games won't keep quiet much longer.

By Gregg Keizer

Kids talk all the time. Their classrooms are as noisy as a runway at JFK, their playgrounds loud enough to stun even the staunchest rock-'n'-roller, their make-believe a constant conversation with dolls, action figures, each other, and themselves.

In a kid's world, silence is not only not golden, it's not possible.

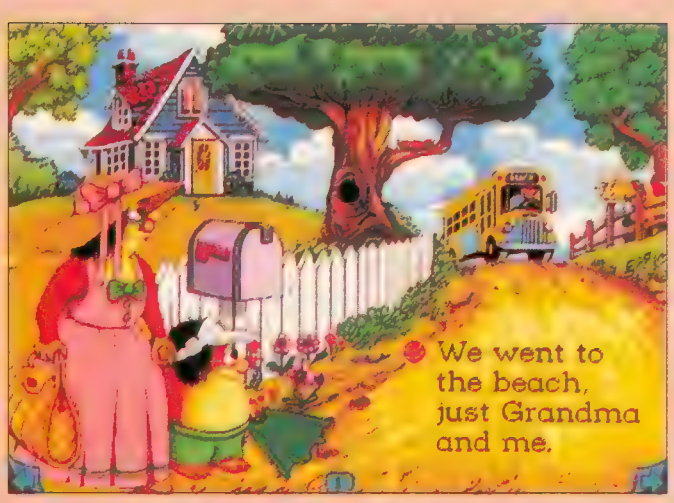
Maybe that's why educational- and "edutainment"-software developers wised up and included the spoken word in a spate of new titles. Or maybe speech is there simply because the technology's possible.

Or perhaps developers are getting ready to launch into true multimedia, which depends on speech — among other things — as no disk-based software ever did.

Most likely, a combination of all three makes talking kids' software a smart move for publishers. But whatever the reasons, dialogue is changing children's programs. It's about time.

Early Learning

Designers of preschool software work under a handicap none of their colleagues shares — they can't assume that their users know how to read. Words on screen must either be backed up with duplicate information in other forms (pictures mostly), or parents must provide the software program's voice.



Just Grandma and Me: a read-aloud story on compact disc.

Both are less than satisfactory; ideally, kids should be able to step up to the PC and play without help, just as they can open a coloring book or pull out a paintbox without an adult around.

First Steps

Broderbund's recent **Just Grandma and Me** is one of the first preschool programs to really make this solitary play possible, for it uses loads of digitized speech that carries kids along.

In effect a computerized storybook, Just Grandma and Me may offer colorful images and lots of small surprises to help tell the tale, but it's the narration that wins kids' hearts and minds.

There are words on screen, sure, but the program also reads them aloud in clear, easy-to-understand speech. In a voice that sounds just as good as any on the audio tapes packaged with children's books, Just Grandma and Me tells the story as the child looks and listens.

Such speech doesn't come without a price, of course. Lengthy narration like this is impossible on a floppy-disk-based program, so Just Grandma and Me, part of Broderbund's Living Books series, comes on a compact disc. In fact, Just Grandma and Me is one of the first MPC (multimedia personal computer) "edutainment" titles scheduled for release this year.

The effect of a talking computer — multimedia or not — on youngsters is striking, to say the least. Where once the PC was silent and somewhat impenetrable, now it's as accessible as the other media that talk to kids: records, television, and videotapes. Just as important is that they both hear and see words on screen, a boon to learning.

Preschoolers have special needs when it comes to computer games. Speech — natural, extensive, and complimentary — is one of the best ways to meet those special needs.

Look, Ma, No Sound Card

PC games talk a lot. But like Just Grandma and Me, they almost always rely on a special sound board to produce speech.

Unfortunately, not every home PC is stocked with an audio board. These add-on cards are relatively expensive, with the Sound Blaster, the board most commonly supported by publishers tossing in speech, running $110 to $120 mail order.

And although they're not difficult to install, incompatibility problems with other devices, such as modems, are sometimes hard to track down, even for technically astute users.

In an ideal world, you wouldn't need to buy yet another part and insert it into your PC to make it talk. **Super Solvers Spellbound**, from The Learning

Company, may not be ideal as a spelling game, but it does talk without the crutch of additional hardware.

Spellbound makes kids work their way through three word-based activities before it lets them head for the program's *pièce de résistance*, the spelling bee. Those three pre-bee drills — a flash card, a find-the-word, and a crossword — are fun in their own right, but they're mute and so nothing new. What really makes Spellbound special — and it's exactly that — is the talking spelling bee.

Using proprietary speech production and compression techniques, and no additional hardware, Spellbound's designers make the PC say *Please spell the following word* in a clear, feminine voice when you step up to tackle a word in the bee.

Almost always understandable, the speech is reminiscent of Access Software's RealSound, a technology that's seen limited use outside that game company's own titles.

Even better, and more realistic, too, is when Spellbound actually pronounces the words you're to spell, just as a teacher in a real spelling bee would. Spellbound says *Please spell the word "slippers,"* just one of the 300 spoken words crammed into the program.

Speech in something like Spellbound is no simple diversion, but an integral part of the process the software's trying to replicate.

Spelling skills can be developed by drill and constant practice, of course, but pronunciations are a vital component, too, whether said by the teacher to familiarize kids with the words or by the kids themselves as they try to spell out a difficult word.

Without speech, a program like Spellbound would be only so much dross on disk.

It's exciting to see a program such as Spellbound push to make speech heard by every PC user, not just those with pricey sound boards.

A Talking Head Is Better Than None

For all Spellbound's accolades, it's a fact that the spoken word is heard most often on PCs equipped with a sound peripheral. (Not only that, but it's much easier for a designer to incorporate sound when a sound board's present than to go the route that The Learning Company's taken with Spellbound.)

Walt Disney's **Sound Source** peripheral is an alternative to high-priced sound cards. Not only does the Sound Source cost less than half the price of the least-expensive sound board, but you don't have to open the PC's case to install it. You simply plug it into the computer's printer port; the printer cable then piggybacks onto the Sound Source's connector, so you don't lose printing capabilities.

Sound effects, music, and speech can come out of the Sound Source's speaker — if the developer of the software you're running decided to write in support for the device. Few companies have, other than Disney itself.

Mickey's Jigsaw Puzzles, for instance, supports the Sound Source with music, effects, and digitized speech. It's nothing that will knock kids over — phrases like *Oh, Mickey, that's wonderful!* are typical — but one talking head is better than none. An added attraction is that the spoken words also appear in balloons above the character's head, opening up some good read-along opportunities.

What really makes the Sound Source something to take note of, though, is that it was licensed recently to Phoenix Technologies, one of the computer industry's BIOS (*basic input/output system*) and chip-set makers.

Plans are still sketchy, but it's possible that Phoenix will incorporate the Sound Source's features into either the PC's BIOS or into a chip on the motherboard.

Built-in sound — including speech — is something the PC's never had, and though the Sound Source is a lowest-common-denominator-like technology, it could easily transform children's software if it became widespread.

Even the smallest chunks of speech can turn an average kids' game into something special.

I've watched kids stick with one of Mickey's Jigsaw

PRODUCT INFORMATION

Just Grandma and Me
Broderbund Software
500 Redwood Blvd.
P.O. Box 6121
Novato, CA 94948-6121
(800) 521-6263
$49.95

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or compatible for CGA, EGA,
Tandy 16-color
640K IBM PC, Tandy,
or compatible
for 256-color VGA
supports AdLib, IBM PS/1
Audio Card, Sound Blaster,
Sound Source boards,
Tandy 3-voice sound
$49.95

Mickey's Jigsaw Puzzles
Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360

Sound Source
Walt Disney
Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360
$39.95
requires parallel printer port
adapter available
for Tandy 1000

6493 Kaiser Drive
Fremont, CA 94555
(800) 852-2255
$49.95
512K IBM PC or compatible,
640K Tandy
DOS 2.0 or later
CGA, EGA, VGA, MCGA,
Tandy 16-color
supports AdLib, Roland,
Sound Blaster sound boards
mouse optional

Super Solvers Spellbound
The Learning Company

Puzzles, for instance, long after their interest has faded, only because they want to hear the ending dialogue and see the accompanying animation.

Talk to Me

Games for kids will increasingly count on speech to separate themselves from the competition and to do what they're supposed to do — teach kids something as they entertain.

Some of this trend will come from the increased number of home PCs equipped with an audio board. As new sound boards début, older (but still capable) products like the Sound Blaster will fall in price, making it more likely that Mom and Dad will pop for speech-capable cards.

Publishers will be able to justify the expense of speech development, knowing that the audience for their work is growing.

A small number of games will offer speech without demanding extra hardware, but admirable though it is, the technology is essentially a dead end.

Access Software's RealSound has failed to carve out more than a niche in the entertainment marketplace; it's foolish to think that something like Spellbound will foster more than the occasional kids' game when audio cards are ending up in more and more PCs.

Disney's Sound Source holds more potential, but only because of the licensing agreement with Phoenix. Few companies have jumped on the Sound Source bandwagon other than Disney itself, but if Phoenix were to integrate the technology at the BIOS or chip level, publishers may think differently.

If they can bank on support at that level, they'll be much more inclined to spend development time and money on speech.

Wave of the Future

If anything can stick speech in the PC, though, it's multimedia.

Since one of multimedia's easiest-to-notice benefits over floppy-based games is speech, you can bet that publishers will spotlight it and increase its importance in their titles. More speech in multimedia games could well drive a demand for more speech on floppy-disk programs. The potential synergy between multimedia and traditional PC games is certainly one of the most exciting things to hit educational and "edutainment" development in years.

Nothing but the Best

The ultimate kids' games talk, and talk a lot. And the ultimate kids' game machine is a fully equipped multimedia personal computer that runs titles that talk themselves, software that uses an audio board, and compact-disc-based games, too.

If that seems like a lot of money to spend just to hear a lot of noise, remember this — children learn by listening. Grab them by the ear and their brains are sure to follow. ❑

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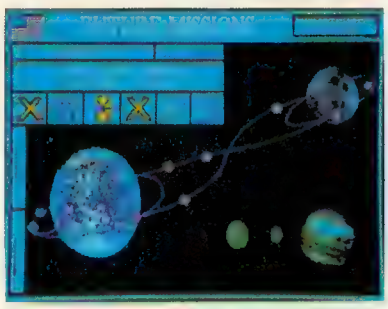

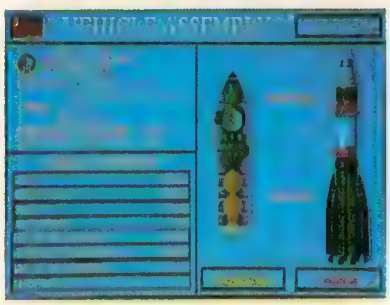

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SNEAK PEEKS

BIRDS OF PREY

By Wes Nihei

The Cold War heats up: East and West battle it out in Birds of Prey.

Remember the days when the Evil Empire ruled from the Elbe to the Bering Strait? Remember atomic-bomb drills in school, fallout shelters in the backyard, or maybe just the bushy eyebrows of Leonid Brezhnev? Remember when the Commonwealth of Independent States went by the more-ominous name of the Union of Soviet Socialist Republics and NATO was locked in a no-holds-barred Cold War with the Eastern Bloc?

Birds of Prey is a combat flight simulator that hearkens back to those not-yet-distant bad old days when the U.S.S.R. was our superpower enemy, when one side or the other blinked at the threat of nuclear destruction. Here the game of brinksmanship has gone over the edge: The West is at war with the East.

Supersonic Selection

Birds of Prey's main hook is the sheer number of aircraft at your disposal. In this varietal jet-combat flight simulator, you can fly any of 40 different airplanes into battle — 27 are from NATO and 13 are from the Warsaw Pact air arsenal. For the most part, you pick from current jet-aircraft inventories, such as the Northrup B-2 Stealth Bomber, the British Aerospace Hawker Siddley Harrier, or the Tupolev Tu-26 Backfire Bomber.

You also get the chance to sit at the controls of planes not found typically in PC air-combat simulations. Some of the jets flying out of retirement in Birds of Prey include the dependable Lockheed F-104S Starfighter and the (still) fastest-flying spy plane ever, the Lockheed SR-71 Blackbird. If you want to fly unarmed, try a Boeing 747 set up for tactical support or a Lockheed C-130 Hercules transport plane.

You can even fly experimental aircraft straight off the drawing board and into action. Try the forward-swept wing Grumman X-29 fighter, for instance. Then for a really fantastic scenario, jump into the North American X-15A rocket aircraft and see whether it can help in the international air war.

You can arm fighting aircraft with state-of-the-art missiles and bombs — from Maverick TV-guided missiles and long-range Phoenix air-to-air rockets to French Exocet ship killers. Fortunately for this alternate history, there are no nuclear warheads in the hardware on either side, even though you're supposedly going toe to toe with a nuclear foe.

You fly this high-tech hardware into an all-out global-war campaign. Campaigns consist of a dozen mission types, which include air interception, long-range bombing, close support and ground attack, border or sea patrol, and more.

One side comes equipped with armaments from NATO and other Western nations, while the other side flies with Soviet equipment. You can fly several types of aircraft for either side.

The global conflict in Birds of Prey is dynamic. Both sides have a limited number of aircraft, airbases, radar stations, surface-to-air missile (SAM) sites, factories, and cities. As you fly a mission, the war takes its toll on these resources. The idea is to pound the other side so severely it can no longer wage war effectively — and do it before it does the same to you.

But Can It Fly?

As a game focusing on the strategy and tactics of modern air warfare, Birds of Prey sounds fascinating. As a flight simulator with 40 different planes at your fingertips, it sounds nothing if not ambitious.

You fly from a first-person out-of-the-cockpit perspective. A grand

total of 17 views, both internal and external, let you look at and watch almost everything. They include vantage points from friendly and enemy aircraft, from your missiles as they head toward a target, from inside the cockpit, or from any angle outside looking back at your aircraft.

The multifunctional display panel, a generic instrument array, and the heads-up display are essentially the same for each aircraft. A few extra displays and control functions will be available for troop carriers, cargo planes, and the AWACS (*airborne warning and control systems*) aircraft. All the controls and displays will be intricately detailed and will take some serious study to master, especially in jets used for close-quarters dogfights.

Because this prerelease version wasn't finished, it was impossible to tell how well the program will eventually represent the individual flight characteristics of the 40 aircraft. At the least, the program takes into account the basic aerodynamic properties of lift, drag, thrust, and gravity for all the planes. Angles of attack will be subject to stalls. As you fly you'll have to monitor pitch, yaw, and roll.

Some of the more specialized aircraft, such as the Harrier, the vertical-takeoff-and-landing jet fighter made famous in Britain's Falklands campaign, will obviously have specific characteristics. Some missions will even demand that you land your jet on an aircraft carrier.

Let Us Prey

The jet-combat simulator arena is already packed with entries from half a dozen wars. Birds of Prey looks to stake out territory on the fringe by packing more planes into the package than anyone else, and by including a strategic element to keep you interested. Maybe variety is the spice of flight.

Electronic Arts, P.O. Box 7530, San Mateo, CA 94403, (800) 245-4525; 640K IBM PC, Tandy, or compatible; VGA; supports AdLib, Sound Blaster sound boards; $49.95

HEROES OF THE 357TH

By Wes Nihei

The legendary P-51 Mustang may have seen plenty of action in the skies over Europe during World War II, but it's spent even more time on the computer screen. The star of such top-notch games as Chuck Yeager's Air Combat and Secret Weapons of the Luftwaffe, the P-51 is the workhorse of WWII flight simulators.

Heroes of the 357th hopes to take the venerable P-51 to new heights by blending a realistic flight simulator with a painstakingly detailed, historically accurate storyline. World War II air-combat buffs ought to get a real kick out of this flight simulator — all the program's missions are based on the actual logs of pilots from the actual 357th Fighter Group.

By 1944, the handwriting was on the wall for Germany's Luftwaffe, thanks to the P-51 Mustang. That year, the 357th Fighter Group of the Eighth Air Force Fighter Command was among the first units to fly the newest version of the Mustang into combat.

With their improved Rolls-Royce Merlin engines, an enhanced fuel capacity, and six wing-mounted machine guns, state-of-art P-51Ds blazed a trail across Europe, clearing a path for the B-17 Flying Fortresses and B-24 Liberators on their daylight bombing raids over Germany. The rest is air-warfare history — and, if the under-construction version I looked at is any indication, the basis of a great flight simulator.

Familiar Skies

If you've already taken the Mustang in Chuck Yeager's Air Combat simulator up into the virtual skies, you'll find this P-51's flight characteristics and controls familiar. Heroes of the 357th is based on that Yeager engine.

Heroes of the 357th serves up great 256-color VGA graphics. On-the-ground scenes during mission briefings and aircraft prep sequences are sharp and nicely detailed. Once airborne, you get the standard views from inside and all around the aircraft. An *Engage Enemy* feature helps you get to the action quickly by displaying a view outside the P-51 of you and your nearest foe. *Weapons View* follows bombs and missiles to their targets. Select *Automatic Replay* and whenever there's a kill (either you or an enemy) the action pauses and you watch an instant replay.

There are other extras in the works, too. You'll be able to increase or decrease the game's time factor — one way to get to the action quickly. The program returns to real time automatically during dogfights or bomb runs. Turn too tightly and the G-forces will display a pilot's blackouts and redouts on screen. And you can bail out if your plane gets shot out from under you. If you're lucky you'll land in friendly territory so that you can keep flying.

Heroes of the 357th's attention to detail also extends to the P-51D's equipment. Standard weapons are .50-caliber machine guns, 20mm cannons, rockets, and bombs. You see the same instrumentation and layout in the cockpit as in the real aircraft.

Sticklers for engineering accuracy will be glad to know that this time around Electronic Arts has used more-realistic flight characteristics with this version of the Mustang. So while your P-51 can haul 2200 pounds of armaments, you have to watch the payload you carry because it affects fuel consumption. The more weight you carry, the less acceleration your Mustang can muster in level flight or when climbing.

Mission: Survival

Similar to Chuck Yeager's Air Combat, Heroes of the 357th focuses entirely on combat flying. Besides survival, your goal is to work yourself up the ranks and down enough enemy planes to become an ace. There won't be squadron strategies in the game, but you'll be able to fly with a wingman.

Although the game lacks the ability to create custom missions, it certainly doesn't miss out on air-to-air action. If you survive, you'll have flown above France and Germany in 34 historically accurate missions in six categories. An overhead-view map guides you to your target areas in each mission.

Missions range from the frantic to the fantastic. In *Fighter Sweep*, you try to rid an area of enemy interceptors, a good test of your aerial-combat flying skills. During *Bomber Escort* missions, your job is to keep enemy fighters from the bombers. You might also find time to drop a load of bombs yourself. *Strafing Runs* see you hugging the ground in low-level runs against ground targets, where your rockets and machine guns can be devastating. You'll chase the infamous buzz bombs in *V1 Intercept*, plowing through enemy squadrons to catch the unguided, jet-propelled missiles as you try to knock them out of the sky before they reach England. The longer you wait the more likely the V1 will crash into friendly territory. And in *Special Weapons*, you tackle defenseless barges on the Spree River in Berlin.

Once you master the first five scenarios, you can try a tour of duty, a mission series that spans several weeks of game time. The longer you last the more glory you bring to the 357th, and the faster you rise in the ranks. These tours of duty are randomly generated, so there's plenty of replay in Heroes of the 357th.

History in the Making

There are a lot of flight simulators for the PC that take you back to World War II. But just as the P-51 Mustang was great among WWII single-seat fighters, Heroes of the 357th could be the best WWII flight sim yet.

Electronic Arts, P.O. Box 7530, San Mateo, CA 94403, (800) 245-4525; 640K IBM PC, Tandy, or compatible; VGA; supports AdLib, Roland sound boards; $49.95

RAMPART

By Gregg Keizer

Cannon shot flies thicker than fog along the coast, and castle walls crumble more quickly than you can slap mortar on brick in Rampart, an arcade game come home to the PC.

Like every good quarter eater, the Rampart of mall arcades draws you in with graphics images, keeps you digging in your pocket for more money, and makes you work to move to the next level. This faithful translation has all those elements and a few more. But the biggest difference is that you don't have to keep feeding coins into your computer.

Build 'Em Up, Knock 'Em Down

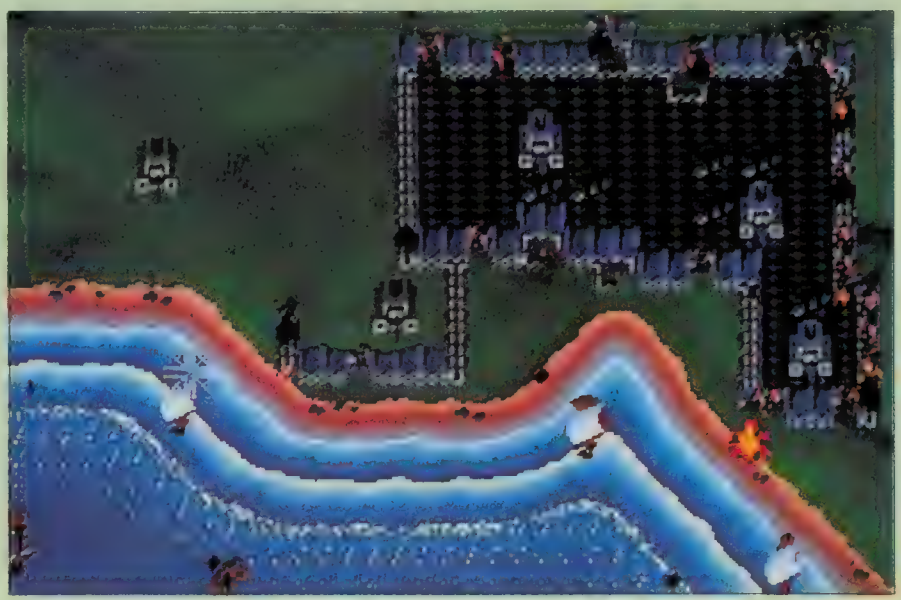
Don't expect a simulation of medieval castle construction in Rampart. This game is reflex action, pure and simple. Sure, some crude tactics serve you well in the long run, but you'll figure them out quickly and without any help.

Rampart's mix of castle building and cannon shooting is laughably simple to master. You start as either *Recruit* or *Veteran* — differences lie in difficulty and in a meager point bonus when you play the latter — as you conquer and consolidate each territorial sequence.

Pick a territory from the map to stake out your first castle claim — in this beta version of the game, only four territories were active, though the finished edition promises more. Five castle keeps appear along a seacoast; you choose which you'll occupy initially. It really doesn't matter which you pick. It may seem prudent to take the ground farthest from the shoreline, because the enemy inevitably invades and marches toward your castle walls, but as you get a few games under your belt, you can choose any of the five comfortably. Another stalling tactic is to grab the keep in the middle; invasion armies usually march from the sides of the screen first.

Your castle walls go up automatically, then wait for your cannons. Like almost every part of Rampart, you've got to beat the clock here, too. Drop the cannons within the fortress — no fair putting them atop a wall or outside the bastion — but do it before time ticks away or you lose them.

The shooting round is next, a free-for-all blast between your guns and the ships in the harbor. A cursor pinpoints your shots, and a press of the key, click of the mouse, or press of the joystick button sends balls flying. With several types of targets, from



On land and sea, Rampart is an arcade game of fast action and quick reflexes.

invading transports to bombardment-happy vessels to the occasional tub that lets fly with red-hot shot, you have your hands full. Sink as many ships as you can, because they're turning your walls into rubble in the meantime.

You get a chance to rebuild your walls between bouts. The most pressured round in Rampart, this scene sees you frantically piecing together a tight circle of brick with the Tetris-like shapes the game gives you. You can rotate them for a better fit, but sometimes you just have to take what you get and make the best of things.

As if all this weren't enough, enemy units make landfall and crowd against your walls. Leave a breach and they swarm in. You can't place walls in their squares (nor can you rebuild where the red-hot shot sparked fires). Fail to complete a wall and you get two more chances, although you're forced to start a new castle.

Assuming you've made it this far, Rampart gracefully lets you place more cannons — if you have the space inside the walls. Then the war begins again — and again. Arcade games are nothing if not repetitive.

Enough Already

No need to dwell on the game's graphics images — you won't be paying attention to them anyway. They're blocky and remind old-timers of the stuff seen on the excellent gaming computers of yesteryear, the Atari 800 and the Commodore 64.

Promised sound effects weren't included in this preview version, nor were several other features, including bridge building, more-detailed castle destruction, and a multiplayer capability. If the sound matches the arcade machine, it should suffice. You'll be too busy concentrating on falling shot, falling walls, and falling hopes to notice much more than the basics.

One thing you'll notice is what you use to direct fire and rebuild walls. Keyboard, mouse, and joystick support are all available, but your castle career won't go far unless you use the mouse. Keyboard control, for example, is just too awkward and slow.

Rampart is more than the sum of these parts. It's an active, addictive game that demands that you think quickly and have even faster reflexes. By nature, arcade translations bring the best and the worst of the original to your desktop. Rampart's no different. It's perfect for the short breaks we all require, but it pales after extended play. At some point, nearly every arcade game becomes boring as you prevail over time constraints, learn to handle countless opponents, and eventually tire of winning.

Rampart is no Tetris, but it's no waste of time, either. It doesn't teach you anything, simulate an experience, or create characters. It's just fun. Isn't that enough?

Electronic Arts, P.O. Box 7530, San Mateo, CA 94403, (800) 245-4525; 1MB IBM PC, Tandy, or compatible; EGA, VGA, Tandy 16-color (VGA recommended); supports AdLib, Roland sound boards; $39.95

ROBOSPORT FOR WINDOWS

By Barry Brenesal

Windows was born to play games. With its attractive graphics and multitasking know-how, it was only a matter of time before the PC's most popular interface found its true vocation — as a gaming platform.

All right, so I'm not completely serious. You have to admit, though, that Windows is a tempting place to play games. With a click of the mouse you can switch between work and play, from WordPerfect to World War II simulations, from 1-2-3 to *Fore!* in a game of golf.

But other than Microsoft's own collections, few Windows games have shown up at the dance. One of the few companies that's talking big about the interface is Maxis, famed for SimCity, SimEarth, SimAnt, and probably SimKitchenSink some day. Maxis' second Windows game, RoboSport for Windows, a translation of a package developed on and released for the Macintosh originally, shows just what Windows can do when it puts its mind to fun, not *Unknown Application Errors*.

Less Is More

You play RoboSport with two to four human players, computer opponents, or some of both. You program — yes, program, and no, don't run and hide, because it's not anything like you imagine — robots for a fight to the death in arenas ranging from suburbs to a rubble-strewn battlefield. This isn't like Origin's Omega, with the kind of programming that involves building a script with commands. In RoboSport you just point your robots in the right direction, then tell them where to aim, what weapons to use, and when to fire. The rest, as they say, is history.

Maxis may liken RoboSport to chess, but it's actually closer to SSI's strategic war simulations — the kind that lets you and the computer program the units individually and in advance. The turn plays out after both sides have entered all the moves.

Such war games, though, carry a lot of baggage with their detailed ratings of weaponry, weather, terrain, supply lines, combat readiness, morale, and leadership. Spread these variables over several dozen fighting units, and you've got some complex logistics to consider. Maxis trims the parameters and your work, without slashing into the variety within each match. In fact, RoboSport is one of those games in which a carefully chosen less may actually seem like more.

For starters, you get five robot models, from *Rifle* and *Burst* to *Auto*, *Missile*, and *Stealth*. *Burst* and *Auto* fire more frequently and with greater force than *Rifle*, but they have lower accuracy and less armor. *Missile* robots also carry rifles, but their primary weapon can harm anything, including your own fighters, up to two

Fight to the death in a variety of war-game settings in RoboSport.

squares away from the detonation point. *Stealth* robots carry a burst gun and remain invisible except when in motion. You can also add high-powered, slow-firing zap guns, destructive grenades, and time bombs you can enable or disable at whim.

In this game you choose from five different robotic combat sports. You'll understand most of them easily, such as *Survival*, *Capture the Flag*, *Hostage*, and *Treasure Hunt*. The oddest is *Baseball*, a variant on the all-American favorite that's much easier to play than the real thing. You can touch the bases in any order and there are no umpires or free agents — just grenades and invisible killers.

Need more variety? RoboSport plays in four game lengths, each with increasingly larger, more complex arenas and a greater number of robots. How about six different formations that decide robot types, weapons, computer strategy, and field visibility?

Beginners use no add-on weapons and can see everything at any distance. *Standard*, *Fire Fight*, and *Missile Fest* up the ante by raising the weaponry in different ways and by giving you a choice to make the computer ferocious or crafty. *Beat the Clock* is a fiendish option, not unlike lightning chess. You have a time allotment for programming all your turns, so think fast or your unprogrammed robots will do great impersonations of sitting ducks.

Customized Mayhem

The sixth formation, *Custom Design*, lets you play God with your robots by changing nearly everything, including the sport, the computer personality, the individual robot design, and the number of teams. You can display enemy damage, hide the flags until you're near the enemy, and design four killer teams. Then you can set them at one another's metallic throats.

RoboSport is no single game. In fact, it's many different games in one. You can make it as cunningly complex or arcade-like as you desire. You even can call up *Movie* mode to replay the last turn or the entire campaign. Zoom in on your errors or fast forward and freeze on the raucous parts.

RoboSport for Windows began on the Macintosh, but you'd never know it by looking at it. Its graphics images are standard Windows VGA and high resolution. The program consumes approximately 560K of RAM and takes up ten percent of available resources.

Endlessly varied, visually attractive, full of action but requiring strategy to win, RoboSport also offers modem, serial, and network modes. All in all, it's an elegant and multitasking way of working out aggression.

Maxis Software, 2 Theater Square, Suite 230, Orinda CA 94563, (415) 254-9700; 640K IBM PC, Tandy, or compatible; Microsoft Windows 3.0 or later; VGA; supports Sound Blaster sound board; requires mouse; compatible with networks that support Windows and NET.BIOS; $59.99

ADLIB GOLD 1000 SOUND CARD

By Barry Brenesal

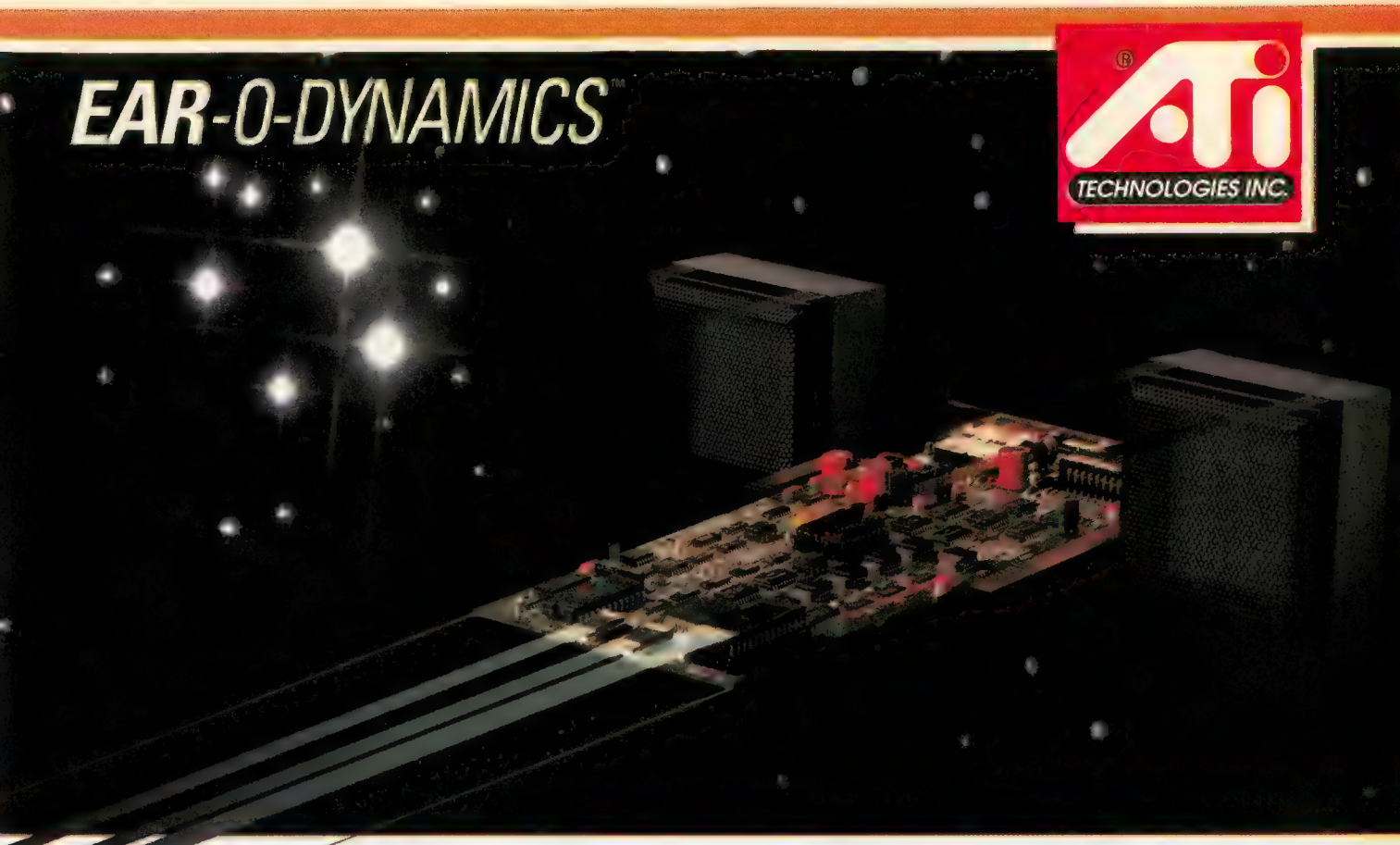
The doorbell rang and a large, feathered serpent arrived, flanked by cherubs bearing cornets. As the nine Muses sang and danced attendance upon Athena (the Greek goddess of wisdom, who watched approvingly), I signed for an early, partially activated version of the AdLib Gold 1000 card. Hosannas were sung, flowers were scattered across the walk, and incense was burned.

Okay, so maybe it didn't go quite like that — you'll have to talk to the Federal Express driver for the whole story. But my enthusiasm and my expectations were high. After all, this was the AdLib Gold sound board, the one several years in the making and at least a dozen months a-borning. That's a long time to wait.

It was worth it, though. The AdLib Gold 1000 Sound Card will certainly knock your socks off.

Ready for You, Not for Me

By press time the AdLib Gold card will be on the market, so you can test it yourself. In fact, you can go much further than I could, owing to the limitations of the preview unit's



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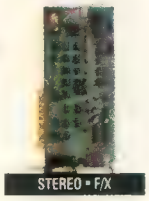

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incomplete hardware and software. And when you're finished, you'll surely agree that AdLib has a winner on its hands with the Gold 1000.

The benefits start early with an installation process that's as simple as any around. An agreeable, menu-driven test program lets you check the card's standard and add-on functions, which include timers, audio, FM sound, and a mixer. A separate configuration option lists current interrupt and DMA channel settings. If hardware conflicts exist, you won't have to reset the jumpers by removing the card physically. (At best, doing so is a nuisance. At worst, a simple static charge at the wrong time can ruin chips.) An enclosed set-up utility actually lets you make changes from the keyboard. All in all, the Gold 1000 is the easiest PC audio card to reconfigure.

The pride of the new AdLib Gold 1000 card is its Yamaha stereophonic YM262 FM synthesizer chip. Boards such as the current Pro AudioSpectrum and Sound Blaster Pro use the older, monophonic YM3812 chip, which requires two voices to create a sound in dead center. Because they start with 22 voices in all, in an extreme case this reduces the number of actual voices available to 11.

With AdLib Gold's YM262, each voice is stereophonic — and that means you can direct synthesized sounds to the left, right, or center. (It's compatible, however, with Sound Blaster Pro and ordinary AdLib files.) You can accomplish stereophonic reproduction with each of the available 20 voices. That ability and some other factors give software developers a richer, more flexible sound palette with which to work.

Sure, there are high-end cards available now — the Turtle Beach Multisound board is an example. But with a list price of more than $1000, it's well beyond the resources of gamers, who won't bite on such expensive sound bait. From a game developer's perspective, it makes much more sense to create top-notch sound and music for something such as the AdLib Gold, which retails for $300. At that low price (well, it's low relative to other, comparably feature-packed audio cards), developers can expect a substantial audience for their work.

Space Through Sound

The version of the card I received contained only a few music files, none of which demonstrated the complex, four-operator voicings or naturalness for which the Gold is touted. The frequency response of what I did hear, though, was extraordinarily good, and the distortion level was unnoticeable over the entire audible dynamic range. Sure enough, this was because of a higher digital sampling rate and a larger sample size. The Gold's sample dynamic range is 72 decibels, much broader than, say, the Pro AudioSpectrum's 48 decibels.

Game music can sound great, but you have to admit that it usually comes in only three volumes: loud, soft, and off. That's the way it often sounds, but in truth, the dozen or so volume settings on standard sound cards limit what developers can do. The AdLib Gold 1000 sound card provides for 128 levels of volume control on each source.

You can also try three add-ons with the AdLib Gold 1000 card. One is more for the business set. It's a telephone answering system that resembles sophisticated voice mail. The second two should interest game players. One is a SCSI adapter kit that turns the AdLib Gold 1000 into an interface card for a CD-ROM drive. This feature is a boon for anyone considering the move into multimedia gaming. You'll probably be attracted most to the *Surround Sound* module, which includes stereo depth simulation, echo, and reverb effects.

It's the depth simulation that gives this module its name. *Surround Sound* is a new, sophisticated application of an old, precise concept. (How old? My teacher in tape editing, Dr. Walter Welch, used to get a kick demonstrating a primitive version of it with recordings made in the 1920s by his mentor and employer, Thomas Alva Edison.) When you vary the echo, the frequency response, and the volume of sound reaching each ear (you must do it according to precise scientific measurements), you not only can generate sound environments that mimic real ones, but you can create the illusion of space in all sizes and shapes.

Because this concept revolves around mathematics, you don't need specially designed software to take advantage of *Surround Sound*. You can add its effects individually or in a group to enhance your favorite games. Use the analog mixer to add echo in the Wing Commander Special Operations modules, for instance, and enlarge your galaxy by several million parsecs. (The contrast of different-sized spaces controlled by a game, of course, will have to wait for software developers, but several are already in the works.)

On the basis of its specs, demo files, price, internal options, add-ons, and ease with which you can configure it, the AdLib Gold 1000 card will bowl you over. When that happens, get back up, find yourself a warm, comfortable chair, and get ready to experience the kind of affordable computerized sound of which you've always dreamed.

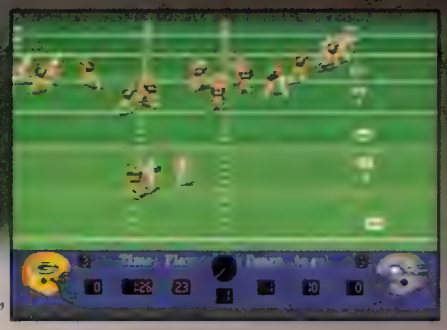
AdLib, 220 Grande-Allée East, Suite 850, Quebec City, Quebec G1R 2J1, Canada, (800) 463-2686; IBM PC or compatible; one open 8-bit expansion slot; $299.95

ULTIMA VII: THE BLACK GATE

By Peter Olafson

Big, beautiful, and sporting a bad attitude, Ultima VII: The Black Gate is, quite simply, like no computer role-playing game you've ever seen. It's a staggering technical achievement — close to 20 megabytes' worth — and, based on an extended acquaintance

They're Not Even In Our League.



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with this under-construction version, it's going to be a wonderful game.

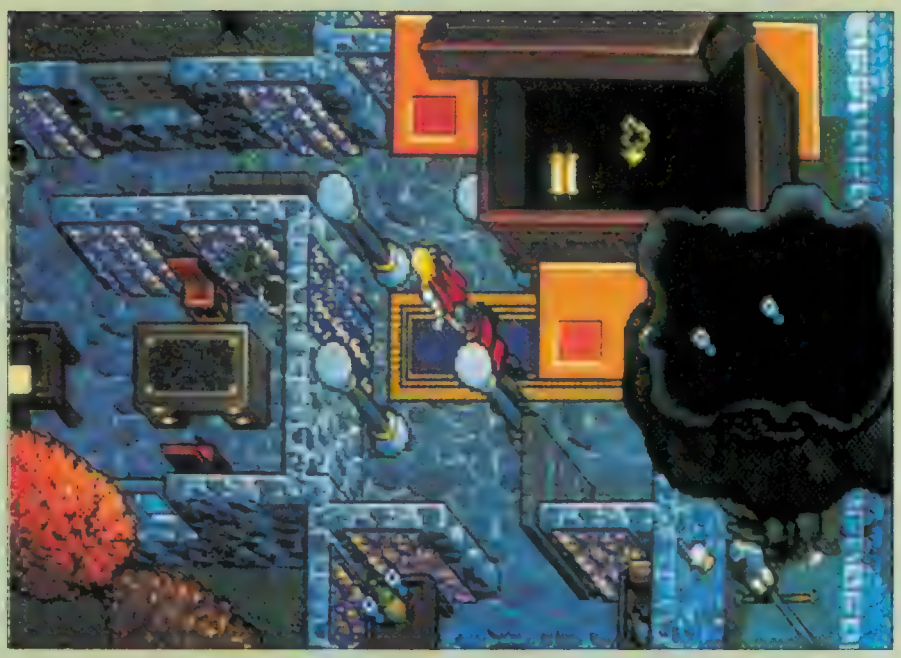
Big, Bigger, Biggest

Ultima VII is big — really big. It's almost as though someone stuck a microscope atop the giant tapestry of Ultima VI, then turned up the power. Buildings, bridges, parapets, docks — all at least twice as large as before — reach out to you from the depths of the screen as though the computer could barely contain them. Characters are more substantial now, and give the impression of occupying space. This world, and the life that flickers within it, is guaranteed to make you feel more euphoric and more nervous than any of the ones that came before.

The initial, and almost overwhelming, impression is one of sheer size. It's difficult to conceive of a city erected on this scale and with this much detail, but there's actually an entire world, not just a clutch of cities. A world that comes with wilted corn fields, with trees in and out of bloom, with cats and dogs that roam city streets, with thunder and snow storms, with forests populated with timid deer, with swamps that churn and bubble, with fountains that work, and with surf that crashes on the shore. And it comes with something looking down on it all that feels no love lost for an Avatar.

The adventure begins in the walled seacoast city of Trinsic, in southwestern Britannia, 200 years after the conclusion of Ultima VI. There were evil doings here the night before you arrived in a swirling red Mongate. The local blacksmith and a gargoyle stable hand were murdered — in a most grisly way — and the mayor asks you to investigate.

That task takes you around the city in search of clues (a grand opportunity to get familiar with the new mouse-driven interface), and at length pulls you inexorably north, through the poor country village of Paws and the gleaming jewel of a capital at Britain. The world holds



Ultima VII: The Black Gate is deliciously creepy — a whole new world unto itself.

such beauty and complexity, with so many potential leads to follow and interesting places to poke into, that you'll hardly know what to do first. I couldn't resist just playing the tourist and taking a long look around. I'm still looking. When I got to Britain — the midtown Manhattan of Ultima VII — I fairly gasped.

Dark, Darker, Darkest

Once you get used to Ultima VII's scale, the respect for its size gives way to a shiver of uneasiness — real uneasiness. This is by far the darkest of the Ultimas, not so much for what appears on screen, but for the way the game makes you feel. The Black Gate is not the first Ultima to generate atmosphere, but it's the first to do so in much the same way a well-crafted novel or a movie generates it — with an initial shock to get your attention, and a nice slow burn to keep it.

The shock is the murder, but the burn is much more subtle. Indeed, the game is the most subtle and eloquent of all the others in the Ultima series. It's more dedicated to showing than telling, and it appears largely free of designer Richard Garriot's philosophical bent.

The game begins to smolder when you make the acquaintance of the apparently well-meaning, but also suspiciously cult-like, do-gooder outfit called the Fellowship. The people you meet sometimes seem just slightly off speed. Magic isn't working reliably anymore, and it seems the Trinsic murder isn't the only murder of its kind. There are suggestions that society is beginning to fray at the edges.

Now, I'm a big boy, but playing Ultima VII: The Black Gate alone and at night absolutely gave me the creeps. Naturally, you don't have to go it alone. The Avatar name still rings a bell in people's heads. Lord British is still running the show. Your old pals Iolo, Shamino, and Dupre are here, too, but they're a bit spread out, and it takes a while to assemble the gang.

Good, Better, Best

Ever since Origin started designing Ultimas on the PC, each game has been more a reinvention than an evolution. Ultima V, the first in the current series, had an unprecedented level of detail. (Remember the tiny clocks that actually told time?) Ultima VI was the first to take advantage of

VGA and the mouse, and permit individual control of characters outside combat. Ultima VII was built with a legion of fast 386es in mind. (You'll need at least a 386SX with 2 megabytes of memory, and Garriot indicates it will run faster with 4.)

The perspective is the same angled-down view of Ultima VI — as though you're the party's guardian angel — but the view in Ultima VII is now full screen. There's not an icon or a stat in sight. The text and party-management windows last seen in Martian Dreams are gone, so you view the game world and not the game engine — until you summon it.

The keyboard will work, but the mouse is the weapon of choice to direct characters, initiate conversations, and examine, move, or use objects. If you're in a chatty frame of mind, double-click on a character to call up a portrait and a list of things you can ask. If you want to see what's in the sack, click on it and the sack opens up on screen. If you want to add money to it, click on the money and drag it into the sack.

And Then Some

All of this is superimposed directly over the view screen. This may take some getting used to — it felt a little messy initially — but ultimately it just feels like another application of the microscope metaphor. Once you grow used to it, you'll begin to think of the mouse as your right hand — make that the Avatar's right hand — and I suspect that's exactly the idea.

Ultima VII is the most exciting thing to come down the pike in ages.

Origin Systems, P.O. Box 161750, Austin, TX 78716, (800) 999-4939; 2MB IBM PC, Tandy, or compatible, 16MHz 386SX or faster (20–25MHz 386SX or 386 recommended); VGA, MCGA; requires hard-disk drive (at least 20MB free); supports AdLib, Sound Blaster, Roland MT-32/ LAPC-1 sound boards (Sound Blaster required for digitized speech); mouse recommended; $79.95

PLANET'S EDGE: THE POINT OF NO RETURN

By Bernie Yee

Science fiction has gotten the short end of the stick for far too long. While fans of fantasy have been playing PC characters who strut through kingdoms, shudder in dungeons, and slash at monsters, science-fiction devotees have been making do with only a single outstanding role-playing game (RPG) — Wasteland, an Apple II adventure.

Sure, science-fiction role-playing titles have wormed their way onto the shelves from time to time, but all have showed up with faults and flaws. New World Computing hopes to flesh out the list of top-notch science-fiction RPGs with its new offering, Planet's Edge: The Point of No Return.

It may not use the same engine as the one that runs New World's own Might and Magic III, but Planet's Edge is just as playable and easy to learn, and features the same smooth, colorful graphics and excellent sound as its sword-swinging brethren. And its storyline is even more compelling and interesting than Might and Magic III's. Planet's Edge will be hard to top as best science-fiction RPG of the year.

Where'd It Go?

The premise of Planet's Edge is certainly original. An extraterrestrial spacecraft enters Earth's solar system while your party is stationed on Earth's Moonbase. In a fit of hysteria, the U.N. launches a futile attack on the craft. Shortly after that, the Earth disappears and the spaceship is damaged.

Moonbase scientists surmise that the planet is caught in a space time warp (which explains why gravity still holds the Moon in place) and decide to explore the alien ship. They discover scientific artifacts (among them, faster-than-light travel and matter transmission), realize that the spaceship was engaging in some sort of experiment, and decide that it's possible to bring back the Earth by reassembling an alien machine. The scientists piece together a starship and dispatch your crew to contact alien intelligences. Your task is to uncover what happened, recover more alien devices to equip your ship, and gather the proper artifacts to save the Earth. Ambitious, isn't it?

Great combinations: sci-fi role play in Planet's Edge.

Your crew is a quartet of specialists in science, medicine, combat, and diplomacy. Each character has different attributes; they'll all come in handy as Planet's Edge leads you from one situation to another. Reams of information come your way during your mission, too much to handle on paper. Isn't it time for a computer-controlled note-taking or message-recording system? After all, this is a game, not a lecture.

You can customize your modular spacecraft with the limited payload available on Moonbase, but other, more sophisticated options become available as you discover the raw materials and plans to manufacture new modules.

Planet's Edge's game play takes place in two major areas: a two-dimensional space-travel segment and a surface exploration. Space travel results in encounters with friendly, neutral, or openly hostile alien races. You fly and fight by clicking on your crew members on the bridge, which lets you give orders for each specific station, such as navigation, sensors, and weapons.

Your ship, the *Ulysses*, starts out as a creampuff compared to the other advanced spacefaring races you'll encounter. Play it smart and head to Alpha Centauri for some direction and combat experience.

The Alpha Centauri system (seredipitously, the destination of the crew from the old TV series *Lost in Space*) contains an alien base that should be your first stop. After entering orbit, you beam down and encounter defense robots and a base that's been raided. Ahhh, life is never simple, especially when you're playing an RPG.

The view, reminiscent of both Wasteland and BattleTech: The Crescent Hawk's Inception, is strictly a top-down, tile-based graphics system, excellently rendered in VGA. Don't expect serious realism in this science-fiction game's look, though; New World has a habit of erring on the side of cartoon style, as witnessed by Might and Magic III. You can use the keyboard to move around, but the mouse works better.

From Alpha Centauri, you'll throw yourself into the space community as an infant member. And, like a good RPG, Planet's Edge offers puzzles aplenty to solve along the way.

Science-fiction fans are fortunate to see both Star Trek: 25th Anniversary (more a space adventure than a role-playing game — see "Boob Tube Bonanza," p. 70 in this issue) and Planet's Edge hit the store shelves around the same time. If you enjoyed Wasteland (and many of you did), stop worrying about the now-shelved Interplay sequel, Mean Time, and pick up Planet's Edge. It's pure pleasure to play.

New World Computing, 20301 Ventura Boulevard, Suite 200, Woodland Hills, CA 91364, (818) 999-0606; 640K IBM PC, Tandy, or compatible; EGA, VGA; supports AdLib, Pro AudioSpectrum, Roland, Sound Blaster, Sound Blaster Pro, Thunderboard sound boards, Tandy sound; requires hard-disk drive; $59.95

ACES OF THE PACIFIC

By Cameron Crotty

George Bush better not play this game — not unless he wants to relive a nasty part of his past, his brush with death over the Pacific.

As a WWII Navy pilot, Bush was shot down, then rescued by a nearby submarine. It's the stuff of military greatness.

So is Aces of the Pacific, Dynamix's second foray into the flight-simulation arena. The firm's first flight-sim effort, Red Baron, was a heady, detailed swoop into the First World War, replete with scads of Spads to fly (and other planes), plenty of historical ambience, and a realistic, believable flight model. It was such a success that the Second World War must have seemed like a natural. So turn the dial on the Wayback Machine forward a couple of notches and — blink.

You're in a Japanese Mitsubishi Zero or an American Navy Grumman F6F Hellcat, ripping through the clouds at Midway or over some unchartered atoll. You'll find carrier landings, white-knuckle takeoffs, and enough realism to forever ruin your watching reruns of *Baa Baa Black Sheep* on TV.

Oddly enough, given the popularity of flight simulators and the reams of historical information available about WWII, Aces is only the second Pacific-theater air-war simulator. Could this inexplicable lapse constitute an excuse for insecure jingoistic psychobabble from a bored reviewer? Nope.

Two Minutes to Midnight

I started my Pacific career in a Japanese carrier group, in the cockpit of a Zero, ready for takeoff, with four gaijin bandits smoking down on my flight deck. (Software engineers and product managers don't like pushy journalists.) I slammed the throttle control forward, fidgeted anxiously while my crate gained speed, craned my head around, and tried to catch a glimpse of the enemy ambush though the canopy. What I saw took my breath away. Yet again, Dynamix's artists have cranked PC graphics up a notch. As I gained altitude and wheeled over the carrier group (smiling as the ailerons rose and fell in synch with the joystick), I could almost imagine whitecaps popping on the sea and ant-like flight- deck crews scrambling in white-gloved, purposeful chaos across the flattops.

The boys in the Hellcats seemed more interested in flying formation patterns than starting a furball. Probably just as well — at only 4-to-1 odds, there's not a sim pilot written good enough to risk tangling with me. But just for kicks and giggles, I pulled in behind one of the American dogs and dropped the hammer on a belt of shells. Ouch! I could see bits of his fuselage popping off and fires starting on both wings. This is one good-looking game.

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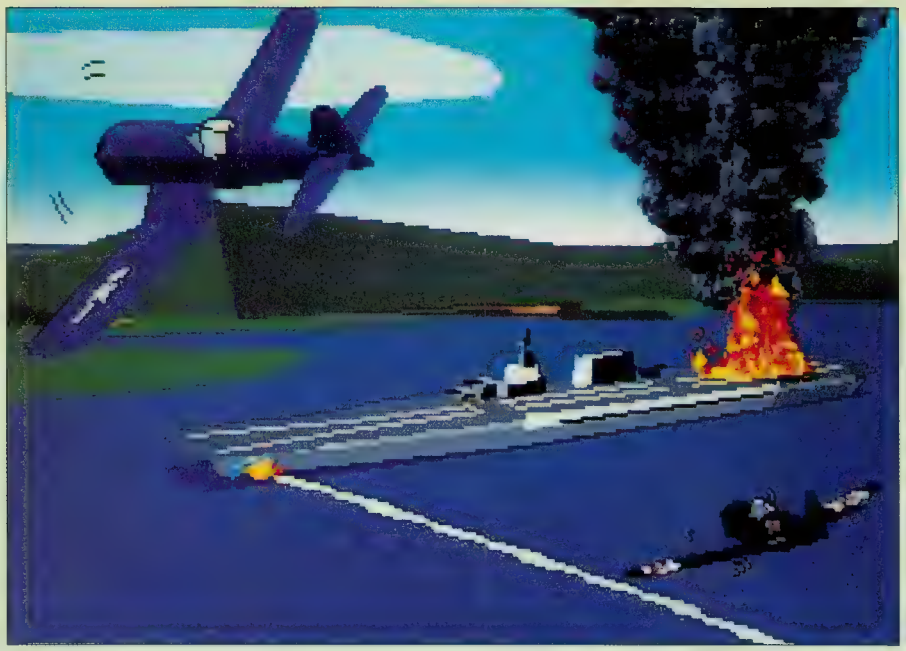


Gorgeous graphics screens make Aces of the Pacific a thrilling game experience.

But wait — there's more. After a few minutes of good clean fun pouring bullets into the bad guys, I noticed what looked like a color glitch in the sky. It took me a few more passes to realize that I was seeing the moon as it appears during the daytime, and that the sky was getting darker with each passing moment. Soon, I could see stars and recognizable constellations, and the other planes got a lot harder to track. Once again, I doff my hat to the graphics wizards at Dynamix.

Although only the simulation engine was working in this under-construction preview, I did get a glimpse of other parts of the program. Aces of the Pacific sports the standard Dynamix VCR-like playback capabilities, which, in comparison with those of some other packages, are more than adequate. Although I was supposedly saving my daring exploits, I couldn't quite get the player to work. Darn — I do love a good movie.

Flight Speed

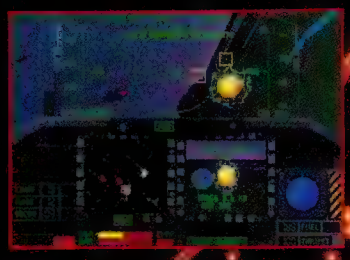
Aces is slow — brutally, unforgivably slow — in this early incarnation. I ran the program on a 33-megahertz 386 with 4 megabytes of memory and a 1-megabyte video card, and I felt as if I were hacking around on my old PS/2 Model 30/286. How well it will run in its final form is, of course, impossible for me to tell. (If I knew that, I'd be making tons of money writing for *The Wall Street Journal*.)

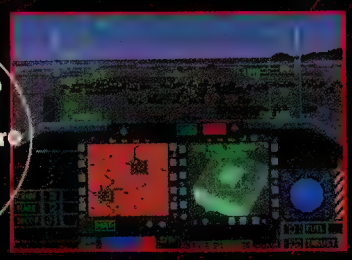
At press time, the tech people at Dynamix said they were optimizing the game, and that when the title ships, Aces should be only slightly slower than Red Baron. (That's understandable, owing to the increased complexity of Aces' ground-to-air, air-to-ground, air-to-ship, ship-to-air, and air-to-air combat.)

As the game now stands, the graphics images are great, the scenario is interesting, and the challenge of flying in the Pacific theater is wellnigh irresistible. Dynamix just needs to match it to Red Baron by tightening up the code and pushing up the frame refresh rate before it ships. And then the company will have another runway winner — pun intended. ❑

Dynamix/Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; 1MB IBM PC, Tandy, or compatible (610K RAM free); requires DOS 5.0; VGA; supports AdLib, Roland, Sound Blaster, Thunderboard sound boards; supports joystick, mouse, keyboard, rudder pedals; $69.95

Rule the Desert Skies





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SAIL THE S

EVEN SEAS

"I am tormented with an everlasting itch for things remote. I love to sail forbidden seas and land on barbarous coasts."

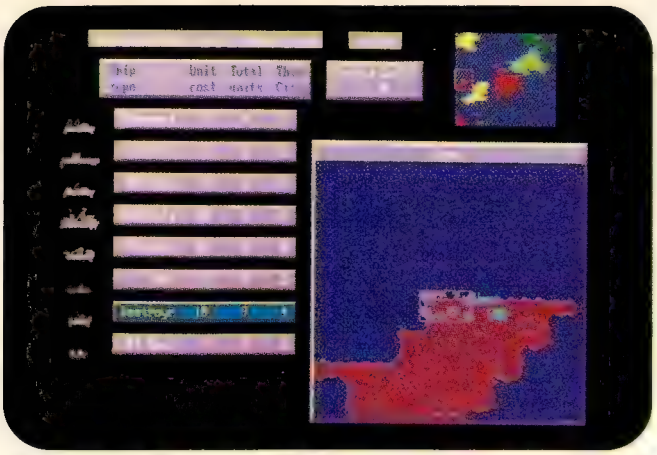
— Herman Melville, *Moby Dick*

From the real-life voyages of Christopher Columbus to Melville's epic tale of Ishmael and Captain Ahab in *Moby Dick*, one theme rings clear: There's no better backdrop for adventure than the sea. That's why we went searching for computer games that capture the excitement of this watery part of the world. At first it seemed like a dismal abyss — look in any computer software store and you'll find plenty of games about space, but hardly one about the sea.

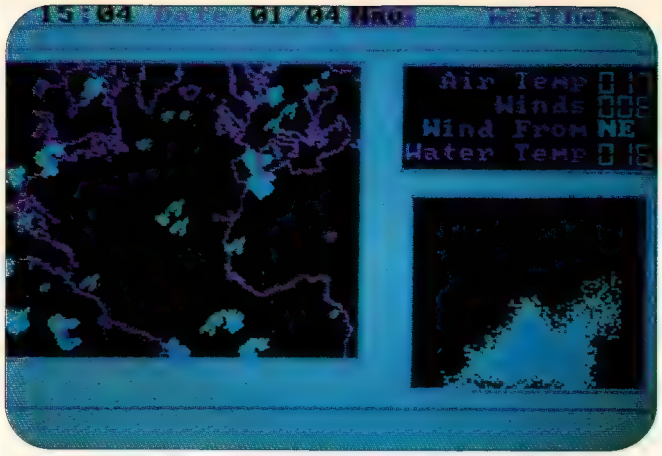
But no explorer with the persistence of a Pizarro or the devotion of a de Gama stops at appearances. A diligent and tireless quest recovered several PC games from the Davy Jones' Locker of bargain racks and forgotten catalogues. And while most seafaring games play up the "hurl a cannonball into the rigging" routine, some titles emphasize exploration and adventure over the roar of guns and the ping of sonar. ▶

BY PETER SCISCO

Illustration by Scoot MacNeil



Match wits with enemy forces in the naval strategy game Lost Admiral.



Explore the ocean floor and hunt for treasure in Search for the Titanic.

Avast, Ye Sea Dog!

Here's your opportunity to sail with some of the scurviest dogs to ever set sail on the Spanish Main. Set in the Caribbean during the golden age of buccaneers (1560 to1700), MicroProse's **Pirates!** makes use of historical records and game-designer fantasies to deliver an addicting adventure that'll unfurl any game player's sail.

There's lots of variety on this ocean. You can play the role of an English, French, Spanish, or Dutch sailor, and pick the period for plunder either from five 20-year eras starting with 1600, or from an even earlier time, circa 1560. Each period offers its own challenges, with different nations at the peak or trough of naval supremacy. Also, you can choose a role in a famous expedition modeled after the real thing. Experienced players looking for an extra challenge can try to re-create history.

A well-written but brief manual provides historical guidelines for play and includes notes on sailing, ships, and tactics. You'll have a chance to use all these skills, as the game's adventure sections are reinforced and realized by arcade sequences that have you fighting sea battles, attacking coastal cities, and dueling with brave captains and villainous traitors.

If you haven't sailed a skiff before, don't fret — Pirates! simplifies the rigors of maneuvering a wind-powered fighting ship. Or you can choose one of the more difficult skill levels, in which you'll learn quickly just how hard it was to tack into the wind, maintain the proper sails, and navigate in shallow waters. Underlying the game's arcade appeal is a sense of adventure. What pirate story would be complete without hidden treasure, romance, political intrigue, and a long-lost sister?

Although Pirates! isn't as strong as newer games, it offers enough balance and arcade action to make the time pass quickly. Tops on the list of problems is the lack of a hard-disk installation option; you must run Pirates! from your floppy-disk drive and swap disks.

Honor Regained

If acting the role of brigand isn't for you, you can still live the fantasy life of a fleet commander with Quantum Quality's **The Lost Admiral**.

Less a sailing game than a tactical naval simulation, the background story line about a court-martial on trumped-up charges sets the stage for your triumphant return — provided you can repeat your successes and bring glory to the new navy that's offered a chance to prove your innocence.

The story takes a back seat to design, which takes the form of geographical conquest. You must seize as much territory as possible, placing port cities under your navy's flag and protecting those cities with a fleet you must maintain continuously and place strategically. You don't hone the cutlass and cannon-shot skills of Pirates!; instead you must anticipate your enemy's objectives and match enemy forces and fleets with your own measures. You can win the game without destroying the enemy fleet (though that helps) by securing point-worthy ports and territory. The player with the highest score at the end of a set number of turns wins.

Attention to the details of ship performance lends an air of realism that's hard to dismiss. Even if you've never been interested in naval tactics, the game will soon have you hooked as it presses you to think strategically and make decisions quickly. A well-designed interface keeps the game within grasp of even the novice, but offers enough depth to accommodate experienced gamers.

The Lost Admiral includes nine scenarios and 15 campaigns. In the predesigned scenarios you play a particular role and have a set number of ships and a fixed map of cities. These scenarios are an excellent way to learn the game, but they're just as challenging to the experienced electronic seafarer. Each demands a unique strategic solution.

Constructed from specific scenarios, campaigns carry your forces forward from one scene to the next. Some campaigns have specific goals, such as escorting or destroying a convoy, sinking the *Bismarck*, or picking up supplies. With capabilities that let you choose the skill level, define game elements such as weather, and use a handicapping system that rewards you when you rise through the ranks, The Lost Admiral is waterborne combat that will tax even the saltiest gamer.

In from the Cold

After learning the basics of naval strategy in a game such as The Lost Admiral, you may want to sail into the extremely detailed world of

Three-Sixty Pacific's **Harpoon**. Based on the popular board game, this tactical naval simulation brings Cold War strategies to the PC.

Covering the period from the end of World War II to the disintegration of the Soviet Union in late 1991, Harpoon isn't a game for weekend sailors. It's a serious simulation that requires and teaches detailed knowledge of weapons systems and ship classes, and forces you to monitor resources and think strategically.

Like The Lost Admiral, ship-to-ship combat is the mainstay of Harpoon, which in its original form concentrates on a confrontation between NATO and the U.S.S.R. (This scenario, or *Battleset*, comes with the game; other *Battleset*s, which focus on different geographical and geopolitical implications and strategies, are available as supplemental disk packs.)

The designers didn't intend Harpoon to be simple. It's no easy feat to maintain a large task force during the early stages of what may become World War III. The abundance of available weapons systems, the deployment of defensive and search technologies, and the attention to strategic goals make for concentrated action. Even players familiar with the world of naval warfare will come away from Harpoon with a new appreciation for modern combat's advances in weaponry and tactics.

A wealth of information about ships — from size to history to construction costs — helps you determine the best way to deploy your task force. Harpoon's comprehensive *Operations Manual* aids in marshaling mixed forces of aircraft and ships — from submarines to carriers to transports.

If this sounds like a battle between huge floating and flying machines, you've pegged it right. Modern naval warfare's most distinctive trait is its tendency to turn over much of the detection and firing to computerized weapons systems. Your job as a commander in this game is to assemble the weapons systems and platforms needed to complete your mission.

You get help from a graphics-based interface with menu commands and status reports. The crew can help you decide when to strike and can tell you when your sailing skills start to falter.

Harpoon calls for cold calculation mixed with luck and intuitive tactics. But even with the wealth of weaponry and reams of information available, one fact remains: Naval warfare is still a captain, a ship, and a journey into harm's way.

A Night to Remember

Not all PC naval games require a military mind. A select few, such as Capstone's **Search for the *Titanic***, dangle adventure and discovery in front of your eyes.

Unlike most naval games in which you start with a ship, a crew, and even some weapons, you begin Search for the *Titanic* with a meager $10,000. With this money you must rent a ship (you can't afford to buy one, trust me); equip it with the right gear; outfit the ship with fuel, provisions, and spare parts (some of the rentals are in pretty rough shape); and hire a crew (from captain to diver).

In most cases, your first step isn't even onto deck. Instead, you'll head to one of several groups that sponsor undersea exploration, begging with hat in hand for some grant money. (It sounds a lot like graduate school.)

In the end, your work and your rewards build to the ultimate challenge: a search for the ill-fated *Titanic*, which sank on her maiden voyage in April 1912 after brushing an iceberg. She took more than 1500 souls down with her.

Being a sea explorer and treasure hunter isn't always what it's cracked up to be. Without sufficient funds, you're reduced to looking for the most pedestrian of shipwrecks in the hopes of earning a small profit to enhance your reputation and add to your pocketbook. Choose your first explorations carefully in this game by selecting those you have a good chance of completing.

Your dives will take you all over the globe, from your home port of Miami, Florida, to exotic locales such as Trinidad and Veracruz. Included in the game is a map of known shipwrecks (including the *Titanic*), which will prove an invaluable aid in plotting your career as an oceanographic explorer.

Details in Search for the *Titanic* cover everything from ship and equipment to personnel and navigational skills. You've got to rent or buy the right ship, equip it properly, hire the correct crew, supply food, water, and fuel, set sail, and with a minimum of delay, discover your first wreck and successfully salvage enough of what you find to make an impression on your sponsors.

When you do finally mount a successful dive to the *Titanic*, you'll be rewarded with digitized photos of the actual wreck. Until then, though, you'll have to suffer through some primitive CGA graphics and an interface in great need of an upgrade.

Even with these limitations, Search for the *Titanic* retains its fascination because of the subject matter and because it's one of only a handful of PC games that separates naval adventure from warfare.

If you've ever wondered what it's really like to be a treasure hunter, Search for the *Titanic* captures not

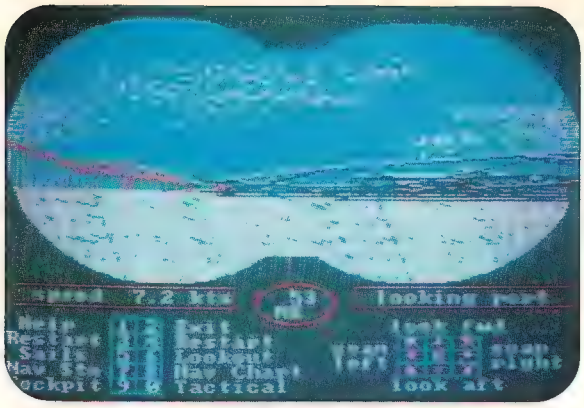
High Stakes at Sea

Dolphin Marine Systems, publisher of Dolphin Sailing Simulator, has another waterlogged program ready to leave harbor.

ASSIGNMENT: MIAMI, CODENAME: ENFORCER is a boat-based game in which you try to interdict drug shipments coming into Miami from South America and the Bahamas. As in its Sailing Simulator, you must learn to pilot your craft before you'll have even a prayer of curtailing smuggling. Mere gunplay won't do it.

Contrary to what you see on TV, hitting a moving target from a moving boat in the middle of a high-speed ocean chase is difficult, if not impossible. Even the Coast Guard intercepts smugglers with clever tactics, not firepower. If calm sailing seems too tame for your PC tastes, try some of this hot action. — P.S.

only its essence, but its complications as well.



Test your seafaring skills in Dolphin Sailing Simulator.

Sweet Salt Air

The purest sailing simulation available for the PC is undoubtedly **Dolphin Sailing Simulator**. Though meant originally to support only CGA graphics, the designer is back in dock and reworking the game for VGA. The result is a smooth, accurate portrayal of sailing for enthusiasts and landlubbers alike.

From the choice of boat to the selection of sails to the loading of equipment, it's up to you to put together a seaworthy craft and plot a course. From there you head out of harbor and do your best to sail the course you've laid.

The main game comes equipped for sailing in the Chesapeake Bay, but supplemental **Voyage Disks** are available that highlight locales such as San Francisco and Boston. With such a variety of voyages, you can learn to sail under many different sea and weather conditions. You even can set the difficulty levels for some learn-at-your-own-pace sailing.

While under sail, you have a variety of views from which to choose, including cockpit, tactical, and navigational. Each offers a new perspective of your voyage, and each comes in handy as you maneuver your craft and trim your sails to meet the ever-changing ocean.

As a game, Dolphin Sailing Simulator awards points for your skill as a sailor, not for your racing acumen. The closer you're able to stay to your planned course, the more points you earn. You also score points for matching your sails to the prevailing conditions and to the course. This isn't a race against time, but an evaluation of your sailing intellect. If you're new to sailing, or if you're landlocked and wish you could learn to sail, this simulation is about the closest you'll come to the real thing.

Anchors Aweigh

In each of these five games, the sea forms the backdrop for adventure, strategic command, and tactical thinking. In different measures and in different ways, they each try to distill at least a part of the seagoing experience. Some focus on adventure, others concentrate on tactics and warfare, while still another emphasizes seamanship.

Sailing can be, in its most extreme, a lonely undertaking as demanding and exhilarating as any task imaginable. There's still room for a game that simulates the hardships and privations of the lone sailor, or captures the spirit of adventure, greed, ambition, and personal glory that marked the great voyages of discovery during the 15th and 16th centuries.

The next time you sit down at your PC and long for adventure, consider a voyage to the sea. ❑

PRODUCT INFORMATION

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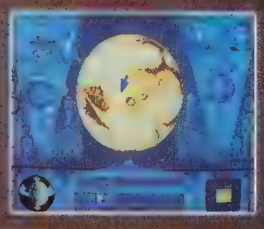

Virgin GAMES

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PC "greenware" can put kid power to work to help save the planet — one game at a time.

Good Clean Fun

MOTHER NATURE'S having a tough time. Global warming, the hole in the ozone layer, landfills filled up, toxic spills on highways and in rivers — we're careless, even criminal, in the way we treat our home.

Although it's tough to change our generation's habits — but there's no reason to think we can't — it's certainly not too late to teach our children to respect the environment. Some software publishers, noting a renewed interest in ecology and seeing an opportunity to teach and entertain, are helping out. "Greenware," computer games that stress an appreciation for Mother Nature, can serve as a teaching tool long after Earth Day has passed.

Even kids as young as 4 can have fun learning about the ecology of our planet thanks to programs such as **Eco-Saurus**, **Operation Neptune**, and **EcoQuest 1: The Search for Cetus**. Maybe we can, too.

By Cynthia E. Field
Illustration by John Ceballos

Eco-Saurus' dinosaur friends help kids reduce, reuse, and recycle.

Operation Neptune beefs up math skills while kids hunt for space-capsule fragments.

Reuse It, Don't Lose It

Spring cleaning takes on a whole new meaning for kids aged 4 to 9 who visit Eco-Island, the setting for Davidson's **Eco-Saurus**, an imaginative recycling game. Any child who likes dinosaurs will enjoy meeting ne'er-do-well Bronto, Tyrone the Shakespearean actor, and Zug the recycling center's megasaurean CEO.

A young gamer's challenge is to go on litter patrol, collecting enough garbage to recycle into parts for a refurbished spaceship. M-Kar, your child's new-found alien friend, didn't keep his pedal to the metal, and crash-landed on Eco-Island. He's grounded and needs help.

Using either keyboard or mouse, youngsters click on screen hot spots as they comb the island for trash. Five categories of refuse are tossed carelessly about the island: aluminum cans and plates; glass bottles and jars; paper; plastic cups and bottles; and organic waste (leaves, banana peels, and such). As kids explore the island, they try to collect enough in each category to fill the bins at the bottom of the screen. Click on a picture of a polystyrene foam cup, for instance, then click on the plastics-recycling bin. The bins fill with red as a child gathers appropriate trash. Picking up litter adds points to his or her score, too.

But don't forget to click on the residents: They'll hint where to find the recyclables. Even tree stumps and rocks join in the conversation on Eco-Island, as characters' lips move and the dialog appears on screen. If your system has an appropriate sound card, kids can hear objects talk, though the voices may sound primitive and robotic. (They did using the AdLib card.) The sometimes slurred speech and awkward cadence are disconcerting at first, but kids' imaginations may shrug it off.

Humor is a big part of Eco-Saurus. The young volcano that quips, "I want to be a landmark someday," is worth a chuckle. Although some of the wit may escape younger kids, it may help keep parents entertained. If you've studied *Hamlet*, you'll appreciate Tyrone's modern version of Ninja Hamlet when he intones, "Lo! What yonder paper rips! Haveth a good day!"

Eco-Saurus' graphics images are age-appropriate, with brightly colored, but not overly detailed, island attractions. It's easy for youngsters to find the light switches or water spigots to turn off, and the gauges that track progress are big and easy to understand.

Each Eco-Saurus scene includes animation, which kids activate by clicking on the appropriate hot spot. A dino duffer lands a hole-in-one, the Plesio family swims in Elasmosaurus Lake, and Alice the dog chows down her din-din. Little ones can repeat the animations as many times as they like.

A printed fold-out map helps young gamers wend their way around the island. To get to a destination, they just find their current location on the map and click on the appropriate sequence of paths and roads on screen.

Younger children will need a friendly lap to sit on while Mom, Dad, or an older sibling helps pronounce and define some of the program's terms. Eco-Saurus occasionally pops up "Did You Know" tips about actions people can take to help the environment. Some of the suggestions are easy for kids to understand. "You can return plastic and paper bags to the store to be recycled" is one example. But other pointers use terms meaningless to small children. "Install a water-displacement device in your toilet to save water" does nothing but confuse kids. A better method would be to suggest a tangible solution, such as filling a jar with water and placing that in the toilet tank. The program offers some four dozen tips in all.

Not surprisingly, the introduction to the Eco-Saurus manual stresses the three Rs of a green lifestyle: *reduce*, *reuse*, and *recycle*. Parents may want to read this section and the Eco-Island story aloud. The manual also includes facts and trivia quizzes, which would help reinforce the game if they weren't . . . well, quizzes.

Ecology by the Numbers

Although it's tempting to compare Eco-Saurus' errant spaceship and its clean-up-the-mess scenario to **Operation Neptune**'s sea-bottom survey, the latter's approach to ecology is much less direct.

In this game from The Learning Company, pieces of the mystery are literally scattered across the ocean floor, from the Dragon Reef and Fossil Trench to Limestone Ridge and Hammerhead. Dangerously high

levels of a toxic substance threaten life in the now pristine, uncharted waters, but to learn the complete story of Substance X, young gamers must play the *Voyager* and *Expert* levels.

Each level takes hours to complete (fortunately, there's a save-game option) as kids maneuver a mini-submarine through a series of ever more complex underwater mazes. The three mazes (or sectors) within each zone weave from screen to screen, each stunningly beautiful, each with a different design and custom colors, each with its own unique community of creatures. Denizens of the deep include barracuda, puffer fish, and other organisms that threaten the success of the mission. The sub is equipped with a limited supply of ink pellets (nontoxic, of course) that kids launch to blind the creatures temporarily.

Each time young gamers avoid or evade a critter, they come closer to a space-capsule fragment or data canister from the aborted Galaxy Space Mission. They must collect the fragments and canister hidden in each sector before they can proceed to the next. The program's nonstop arcade action begs for quick reflexes and strategic planning, because some creatures are bypassed easily, while others are more difficult to outsmart.

From time to time Operation Neptune pops up math problems. Kids must solve them to preserve their dwindling supply of oxygen. Don't be fooled: Operation Neptune isn't like any math software you've seen. The program's challenges focus on real-world engineering tasks, such as computing ballast changes on the submarine, calculating the area of sections of the ocean floor, or figuring the volume of food remaining in the larder. Some dare youngsters to interpret line and bar graphs or pie charts, while others deal with sonar readings, metric conversions, and toxicity measurements. Time isn't of the essence in Operation Neptune, so kids can scratch out answers on paper, use a hand-held calculator, or even better, work with the calculator displayed at the bottom of the screen.

Whenever kids find a data canister, they must crack numeric-sequence codes to read the notations entered by the Galaxy Space Mission crew. (Follow a sequence of 3, 11, 19, and 27, for instance, with 35.) Before entering a supply station, young gamers must open its hatch — which is protected by a combination lock and more mental math. As the inner dial rotates, it stops on random numbers; the program then inserts function symbols (+, –, x, or /) between the numbers. The most challenging combinations incorporate fractions and decimals in lieu of whole numbers.

Operation Neptune's arcade-action format is so appealing that The Learning Company could have taken the easy route and merely tossed out run-of-the-mill questions similar to many of the more pedestrian math programs. Instead, Operation Neptune meshes mathematics seamlessly with each maze game's make-believe scenario. Not only will kids have fun and practice their math skills, they'll begin to appreciate math as a real-world tool, not just an abstract subject on the pages of a book.

Nobody dies in Operation Neptune — not even the menacing Mega Mouth fish. Math mistakes and encounters of the worst kind only rob young gamers of oxygen. And even if they do run out of air, they don't asphyxiate, but simply return to the beginning of the sector for a fresh start.

This isn't to say that Operation Neptune is a snap. Some of the trickiest mazes are devilishly complex. It's a good thing the program hands gamers some help — Zoom, a friendly dolphin, hands over an extra tank of oxygen whenever a player makes contact with him.

Operation Neptune features attractive music and sound effects, but doesn't use a mouse. And though it doesn't require a hard-disk drive, it will run faster with one.

Shed a Tear for the Sea

If your kids would like to learn more about marine ecology and experience a charming blend of reality and fantasy at the same time, don't pass up Sierra On-Line's **EcoQuest 1: The Search for Cetus**.

What makes EcoQuest so enticing is that the program's story has all the ingredients of great mythology. In only half an hour of playing time, your child will be hooked on the tale of Adam Greene, a boy who makes friends with Delphineus, the talking dolphin.

Delphineus is distraught because the great whale king Cetus has disappeared from Eluria, a Greek city that sank into the ocean's depths after an ancient volcano eruption. The Elurians and their mayor (a hermit crab aptly named Superfluous) are upset about Cetus' demise, but despite constant threats from an evil manta named Flesh-Eater, they're still apathetic — that is, until Adam comes along. As Adam, young gamers gain the trust of the sea creatures by solving their pollution problems.

One of your child's first tasks is to clean up Eluria's litter, stowing potentially useful objects carefully in a backpack. Kids discover clever ways to use tools such as the sharp sea shell, which handily removes the plastic six-pack ring stuck on the

EcoQuest: Greek mythology for the '90s.

snout of Hippocrates, the town's chief sturgeon . . . uh, surgeon. (Sometimes the objects they collect work together, but we'd better not give away any more secrets.)

Each successful move kids make earns points toward the potential total of 725. To enjoy EcoQuest, young gamers should click on everything; they'll often be surprised at what happens. The game makes use of the keyboard, but playing with a mouse is better.

Kids must also solve puzzles and riddles to meet Hizzoner the Mayor and Cassandra the Oracle, whose prophecy is the ultimate guide to Cetus' rescue. Just don't take the mission too seriously — EcoQuest is loaded with humor. Youngsters will get a kick out of Adam's song-and-dance-man gerbil and Delphineus' sick fish puns. The program also pokes sophisticated, but good-natured fun at its characters' quirks and foibles.

EcoQuest features the now-standard Sierra point-and-click icons, including the eye for looking at things and reading documents, and the hand for touching objects and stowing items in a backpack. The new recycling-symbol icon stashes trash in a garbage bag.

If EcoQuest stumps the gamer, parents can get immediate help by calling Sierra's automated hint line via touch-tone phone. Each 900-number call costs 75 cents for the first minute and 50 cents for each minute thereafter. A hint book should be available by press time.

To an appealing story add drama, free-form discovery, scientifically accurate information about pollution and marine organisms, gorgeous graphics, and an engaging sound track, and you have a combination that's tough to beat. "State of the art" is a term often applied sloppily, but you'd be accurate in ascribing it to EcoQuest. As scenes change, for example, so does EcoQuest's soundtrack. The relaxing melody of the coral reef contrasts sharply with both the suspenseful music that plays when kids explore the polluted cave, and the agitated strains they hear when Flesh-Eater approaches. As children survey the marine environment with Adam and Delphineus, they can listen for seafaring shanties, reggae, country & western, and various other musical styles.

Although EcoQuest doesn't include digitized speech, conversation between Adam and Delphineus (or other sea creatures) is represented in animated speech boxes. (Look for another version of EcoQuest to be released in compact-disc format, though, which will offer spoken dialogue.) Sometimes Delphineus gives hints about what to do next. When young gamers find Cetus, the whale's speech is represented graphically by large, uppercase letters.

If you had to fight back tears when you saw the movie *E.T.*, get out the tissues for EcoQuest's dénouement. Whether or not you've enjoyed interactive adventures before, you'll discover that EcoQuest 1: The Search for Cetus is no ordinary computer game. In more ways than one, EcoQuest is like a movie that plays on your PC.

But that's not all. The EcoQuest package includes Michael O'Brian's delightful book *I Helped Save the Earth*. It's chock full of practical things kids can do to preserve resources and reduce pollution. Best of all, the book is interactive: Kids get to place an award-badge sticker on each page when they've completed the described task.

Thanks in part to their extensive research in preparation for EcoQuest, the people at Sierra are taking environmental action to heart. The company uses recycled and recyclable products — including paper, vegetable-oil-based ink, and floppy disks — in its packaging. Moreover, the company donates a portion of the profits from EcoQuest sales to the Marine Mammal Center in Sausalito, California. Now that's putting your money where your mouth is.

Fun the Green Way

Although cynical computerists may label these programs trendy, EcoSaurus, Operation Neptune, and EcoQuest 1: The Search for Cetus nevertheless encourage children to be more aware of environmental issues. Without getting on a soapbox, each of these "edutainment" packages offers important lessons about caring for the world we share. ❑

PRODUCT INFORMATION

EcoQuest 1:
The Search for Cetus
Sierra On-Line, Inc.
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654
$59.95
640K IBM PC, Tandy, or compatible
10MHz or faster recommended
for 256-color VGA
EGA, VGA, Tandy 16-color (separate versions for 16-color EGA, Tandy, and 256-color VGA)
supports AdLib, Roland MT-32, LAPC-1, CM-32L, Pro AudioSpectrum, Thunderboard, Sound Blaster sound boards
requires hard-disk drive
mouse recommended

Eco-Saurus
Davidson & Associates
19840 Pioneer Avenue
Torrance, CA 90503
(800) 545-7677
$39.95
640K IBM PC, Tandy, or compatible
EGA, VGA, MCGA
supports AdLib, IBM Speech Adapter, IBM ACPA, Sound Blaster, Speech Thing sound boards, Tandy sound
requires hard-disk drive

Operation Neptune
The Learning Company
6493 Kaiser Drive
Fremont, CA 94555
(800) 852-2255
$59.95
512K IBM PC or compatible,
640K Tandy 1000 series
CGA, EGA, VGA, MCGA, Tandy 16-color
supports AdLib, Sound Blaster, Roland sound boards

The Games: Winter Challenge

"HE HATED THE AUSTRIANS.

THEY WERE FEARLESS, CUNNING AND FAST. FIVE GOLD

MEDALS WERE ALREADY GOING BACK TO KITZBÜHEL. BUT HE VOWED TO DENY THEM A SIXTH. ON THE TRAM, HE TOLD THE REPORTERS. HE WOULD BE THE FASTEST MAN DOWN THE MOUNTAIN THIS DAY." INTENSE RIVALRY. GRUELING COMPETITION. WORLD CLASS SPEED. ALL PART OF THE GAMES: WINTER CHALLENGE.™ GO FOR THE BRONZE, SILVER OR GOLD AS YOU EXPERIENCE THE TOTAL RUSH OF COMPETING IN EIGHT CHALLENGING EVENTS AGAINST THE BEST ATHLETES ON EARTH. THE LIST OF FEATURES IS STRICTLY WORLD CLASS: ♦ 256-COLOR VGA GRAPHICS ♦ A STUNNING BLEND OF DIGITIZED, 3-D POLYGON-FILL AND BIT-MAPPED IMAGES ♦ UNIQUE ATHLETE'S-EYE PERSPECTIVE COMBINED WITH SMOOTH, TRUE-TO-LIFE ANIMATION ♦ 8 AUTHENTIC WINTER EVENTS ♦ VCR-LIKE INSTANT REPLAY ♦ TRAINING RUNS OR FULL MEDAL COMPETITION ♦ DIGITIZED SOUND EFFECTS WITH FULL MUSIC & SOUND BOARD SUPPORT ♦ AND IF YOU'RE TIRED OF ONE OR TWO-PLAYER GAMES, THIS ONE LETS YOU COMPETE AGAINST NINE PEOPLE – THE ULTIMATE PARTY GAME. ♦ THE GAMES. FROM THE SHEER EXHILARATION OF THE DOWNHILL TO THE RAZORS EDGE OF THE LUGE, IT'S THE MOST REALISTIC SIMULATION OF ITS KIND. TO ORDER, VISIT YOUR FAVORITE RETAILER OR CALL 1-800-245-7744. ACCOLADE™

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Circle 126 on Reader Service Card.

Your PC screen gives you a window to new and exciting worlds, but wouldn't you have more fun if you could step through that window and be part of the action?

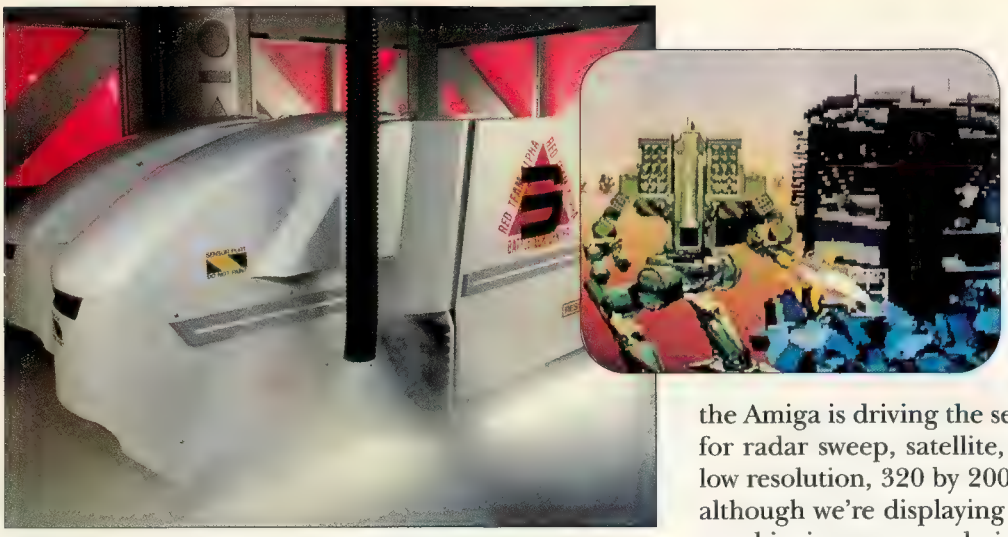
VIRTUALLY YOURS

As if we don't have enough problems, now we've got *aliens* down at the local arcade. Not the goofy, harmless ones on the screens, but some living, moving things gesturing wildly over there in the corner — creatures with helmet-cased heads and gauntlet-clad hands. Don't scream if you see them — it's just not galactically polite.

They may look possessed, the way they writhe within the confines of that strange container, but they're actually just game players looking for a new and different way to stay entertained. And *looking* is the right word, for these game players are gazing into another world, a computer-generated world — seeing things no one else can see, doing things no one else can do. These thrill seekers are experiencing the forefront of *virtual reality*, a technology with more promise and potential than anything since Pong hit the bars a decade and a half ago.

Virtual reality, or *VR* for those who like to throw around acronyms, is more than just a new form of electronic entertainment. VR technologies use computers to create artificial environments with which you interact. But you don't experience these environments just by watching them go by on screen. Instead, you may don outlandish and futuristic-looking gear, from goggles with miniature LCD screens to sensory gloves that detect the position of your hand and fingers. By translating what the computer replicates to the goggles, and transmitting positional information from the glove back to the computer, you

BY MARSHAL M. ROSENTHAL ILLUSTRATION BY EARL KELENY



Battletech's robots go at it, thanks to 200 on-screen 3D objects (each with its own color palette), 100 control buttons and switches, and real-life sound.

seem to actually walk through the computer-made world and pick up objects you see in the goggle screens.

That's the idea in principle. In practice, though, the technology isn't quite up to speed in every arcade across the globe. But let's take a look at two working virtual worlds, so that you can see what's in store for the future.

High-Tech Grins

Visit Fasa's **Battletech Center** in Chicago, and you'll literally crawl into a virtual world. High technology lets you pursue and destroy cunning human opponents from within the confines of a sleek, enclosed console. Once encased, computer-graphics images transport you from the mundane into a violent and dangerous world filled with huge battle robots — the Battlemechs.

Battleteching takes more than just jumping into a plastic pod, though. Unlike most arcade games that require you to simply step up to the machine and drop in some change, Battletech demands a lengthy process.

Before playing, you head to a *Ready Area*, where during a ten-minute briefing you choose among 16 Battlemechs and hear the game's specifics. Here, too, is where you're placed on a team (eight pods to a game, four players to a team), and where you agree on the configuration of the electronic world.

Next, you and the other players pick a scenario (such as day, night, or twilight), each with various degrees of visibility. You'll even need to discuss heat dissipation and its effects on the 'mechs. (In this world you must monitor heat build-up, because it damages the 'mechs and degrades their performance. And that's no easy task — everything you do generates heat.) The Center acts as mediator so that novices won't butt heads with seasoned players.

When you finally get to the 10-minute game, the fun begins, thanks to some on-screen magic made possible by a lot of silicon. As Vice President L. Ross Babcock points out, "The technical aspect of our system is unique, both from what we've created and adapted. Inside each pod is a stripped-down Amiga 500, basically the motherboard, that's used to drive each cockpit individually. Each pod is linked to the others through a network.

"Speed and precision require upgrading the standard 68000 chip [the Amiga's microprocessor] to a 68020," notes Babcock, "and the Amiga is driving the secondary screen. This is used for radar sweep, satellite, and damage control. It's in low resolution, 320 by 200, and allows up to 32 colors, although we're displaying only 16. These basically flat graphics images were designed by a team of artists, and then saved as graphics files to display.

"The main screen to the virtual world is controlled independently by a TI 3410, a graphics-system processor that's running flat out at 40 megahertz. The 19-inch display screen is also driven at a screen resolution of 320 by 200, but the color palette is much more extensive — 64,000 colors. The key to the system, color-wise, is that each object rendered on screen can have 256 colors of its own — a separate color palette that doesn't interfere with that of another. The background is also independent in its colors from the objects."

Babcock points out that the system displays some 200 objects on screen, an impressive number in and of itself, but one the computers can still handle quickly. The system can rotate these objects to produce the 3D effect you see on screen, and refresh them anywhere from six to 12 times per second.

Take Control

You run the 'mech with a variety of controls, from throttle and foot pedals to more than 100 buttons and rocker switches. As you move through the virtual world, the TI 3410 chip directs its output to a proprietary board that sizes, rotates, and manipulates the objects to create the on-screen view. Because hardware, not software, produces the graphics images, the animation is fast.

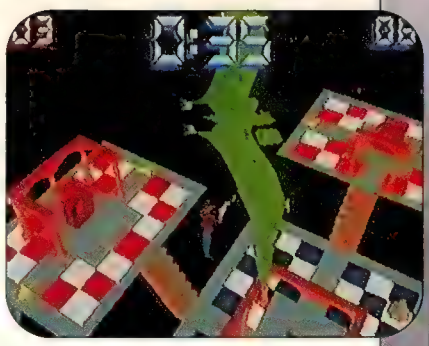
The Battletech Center makes the most of sound, too. In fact, sound plays a major role in the experience. Four speakers inside the cockpit surround you, and a subwoofer beneath the seat adds to the noise and vibration. The sound board uses three microprocessors and a separate controller chip. There's even an intercom that lets you talk to other players.

Battletech's sound effects range from the synthesized to the sampled. Real sounds — crunches against rock or the slow grinding of metal on metal, for example — are sampled from real life, then injected into the game. Synthesized effects highlight actions such as weapons firing. More-sophisticated effects fade other sounds in and out to create the kind of "distancing" needed to

fool the ear into believing certain actions happen close by, while others happen far away.

Although every pod's boards hold a total of 32 megabytes of memory, they're not totally independent. Just before each game, a master 33-megahertz 386 PC equipped with a 100-megabyte hard-disk drive downloads specific scenarios. This information dictates not only the terrain, but also the type of robot and armament the pod controls. The total Battletech software — written in a combination of C and assembly language — consists of tens of thousands of program lines, and took three years to develop.

As complex as Battletech is, you're still looking at a flat screen. It may be a multimedia experience, with sounds blasting and graphics flickering by, but that virtual-reality promise, that you-are-there feeling, is missing.



Virtuality's helmet-and-goggles system makes spatial magic as you turn your head and play with perspective.

Virtually Virtuality

In an attempt to eliminate that final barrier, a widely known PC-entertainment developer has paired with an English hardware manufacturer to test today's virtual-reality limits.

Spectrum HoloByte, of Falcon 3.0 fame, will create software for the **Virtuality** arcade system, a stand-up or sit-down console that integrates a powerful computer, a CD-ROM drive, and a helmet-mounted set of goggles you strap onto your head. The Virtuality system comes from W. Industries, a company headed by Dr. Jonathan Waldern, a young computer scientist and expert in three-dimensional color graphics.

The Virtuality machine lets you see other players and interact with them via a network that links several consoles. Two models, one in which you stand, the other in which you sit, are designed for action games and simulations, respectively. As you climb into the console — the stand-up model has a waist-high railing, while the sit-down model looks like the driving-game video machines so popular in the mall arcades — you pull on a helmet and slip your hand around a joystick.

Inside the helmet are goggles, sporting one small LCD screen in front of each eye, and earphones to pump the CD-quality stereo sound into your brain. The joystick (or in some units a steering wheel) is your controller.

The Virtuality machines are substantial — a single unit occupies a 5-by-6-foot space on the floor — and not exactly home sized. Their price knocks them out of the home market, too, with a single-unit price tag of $60,000. A typical four-unit set-up, then, costs a cool quarter of a million dollars. That's why you'll find them in high-traffic, high-profile locations, such as major mall arcades, clubs, and tourist-intensive places like Las Vegas. (A San Francisco nightclub was reportedly one of the first to buy the Virtuality units.)

Although Spectrum HoloByte plans to produce software for the Virtuality system, its first efforts won't be ready until early 1993. These games should include such stalwart Spectrum titles as Falcon 3.0 and A-10 Avenger. Also in development are games such as VTOL, a vertical take-off-and-landing jet-combat simulation, and Total Destruction, a stock-car demolition-derby simulation. A Spectrum HoloByte spokesman claimed that a glider simulation would also be available for the system.

The Virtuality software now includes Exorex and Dactyl Nightmare. Exorex is a game of first-person perspective in which you hunt four different opponents, each a different color, from behind the controls of a futuristic exoskeletal-armored combat vehicle in the ruins of an urban battlefield. Dactyl Nightmare, designed for two players, runs from the stand-up unit and takes place in a surreal world of checkerboard platforms, pillars, and archways. Players chase each other over platforms suspended in space, and perspective shifts can make the blood rush to your head.

Virtually There

Enough talk — time for the truth. Let's try out Virtuality. Climb into the stand-up booth, grab the joystick, and adjust the snug helmet. A few moments later you're seeing the world of Exorex.

No great shakes at first glance — just a nice computer-generated image with the kind of filled-polygons you'd expect in today's flight-and-action simulations. Then you turn your head — and the scene doesn't shift. Instead, you see another part of the scene. Dactyl Nightmare lets you see amazing and intriguing

PRODUCT INFORMATION

Battletech Center
Virtual World
Entertainments, Inc.
1100 West Cermak #B404
Chicago, IL 60608

Virtuality
Horizon Entertainment
501 North Broadway
St. Louis, MO 63102
(800) 455-8746

perspectives, and better yet, even lets you judge distance accurately. Still, you may be disappointed. You're not seeing new stuff, certainly not the kinds of graphics images you may have expected. The visuals aren't any better than what you see today in many PC, video, and arcade games (in fact, they don't match the very best), and the sound, though good, isn't any clearer than what you hear when you play a top-notch multimedia PC title.

But it's the combination of these elements with some spatial magic that does the trick. That's what VR is all about. Not only can you move ahead and watch the scene change, but you can actually turn your head and see something different. Unlike a computer or video-game screen, the VR images aren't static and two-dimensional.

Descriptions pale in comparison with the experience. Imagine sitting in one of those multiscreen arcade machines at the mall, where three screens give you a panoramic-like view of the game. Now imagine that same game, with screens smoothly encircling you, each showing the sights you'd see if you looked in that direction. That's what Virtuality is like.

Virtual reality as an entertainment medium has a long way to go before it reaches the true potential of the technology. But at least the path taken by systems such as Battletech and Virtuality seem to be in the right direction so far.

We're ready and eager. Ever since we stuck our heads into Battlezone and viewed the bleak vector world of tanks and cones, we've been ready. These systems only whet our appetites for more. Home VR may be a million light years away, but down at the arcade, it's so close you can reach out and touch it. ❑

Virtual Reality on the Desktop

Games that let you head into another world aren't new, and in fact have been around for some time on a variety of gaming platforms. Consider such titles as Accolade's LES MANLEY IN: LOST IN L.A. and ICOM Simulations' SHADOWGATE, which features a window that lets you interact with the simulated world. In these types of games, you use a cursor or mouse to pick up objects, move things around, and play with cause and effect.

On a more heroic level, numerous role-play games stress a you-are-there, first-person perspective. THE BARD'S TALE series was among the first, but the best so far is Origin's ULTIMA UNDERWORLD: THE STYGIAN ABYSS. Featuring the kinds of high-end graphics images and sound effects you expect from simulation-design experts, Underworld holds great promise. It features a first-person perspective, miles of mazes and hidden rooms, and a variety of monsters. Icon driven, with auto mapping and a centered viewing window, Underworld's continuous movement is the highlight of the game and part of what makes it a virtual-reality-style piece of work. (For more on games that let you create your own worlds, see "Virtual Reality NOW!" in January/February 1992, p. 28.)

If you want to build your own elementary VR universe, try Domark's VIRTUAL REALITY STUDIO. Using a menu-driven interface, VR Studio lets you construct your own locations from filled-polygon shapes you not only move around, but walk through once you're finished. Similar to a CAD/CAM package, Studio is for those who want to explore the desktop possibilities of virtual reality.

The key to VR is interaction — the ability to experience something firsthand, make changes to the characters or the environment, and then see those changes reflected in the results. That's the promise of virtual reality in games, whether you play them on your home PC or at a mammoth gaming center downtown. — M.R.

PRODUCT INFORMATION

The Bard's Tale
Electronic Arts
1450 Fashion Island Boulevard
San Mateo, CA 94404
(415) 571-7171
$14.95

Les Manley in: Lost in L.A.
Accolade
550 South Winchester Boulevard
San Jose, CA 95128
(800) 245-7744
$59.95
640K IBM PC, Tandy, or compatible
10MHz or faster
DOS 2.1 or later
VGA, MCGA
supports AdLib, Roland MT-32, LAPC-1, Sound Blaster, Thunderboard sound boards
requires hard-disk drive
mouse recommended

Shadowgate
ICOM Simulations
648 South Wheeling Road
Wheeling, IL 60090
(708) 520-4440
discontinued
limited quantities may be available from mail-order sources

Ultima Underworld: The Stygian Abyss
Origin Systems
P.O. Box 161750
Austin, TX 78716
(512) 328-0282
(512) 328-5490 customer service/tech support
(800) 999-4939 customer service/tech support
$79.95
IBM PC, Tandy, or compatible
286 or higher
386 recommended
20MHz or faster recommended
550K RAM free
1MB EMS
VGA
DOS 2.1 or later
requires hard-disk drive (14MB free)
supports AdLib, Roland MT-32/LAPC-1, Sound Blaster sound boards
supports mouse or keyboard

Virtual Reality Studio
Domark
550 South Winchester Boulevard
Suite 200
San Jose, CA 95128
(800) 245-7744
$89.95
640K IBM PC, Tandy, or compatible
CGA, EGA, VGA, Tandy 16-color
supports AdLib sound board
supports joystick, mouse

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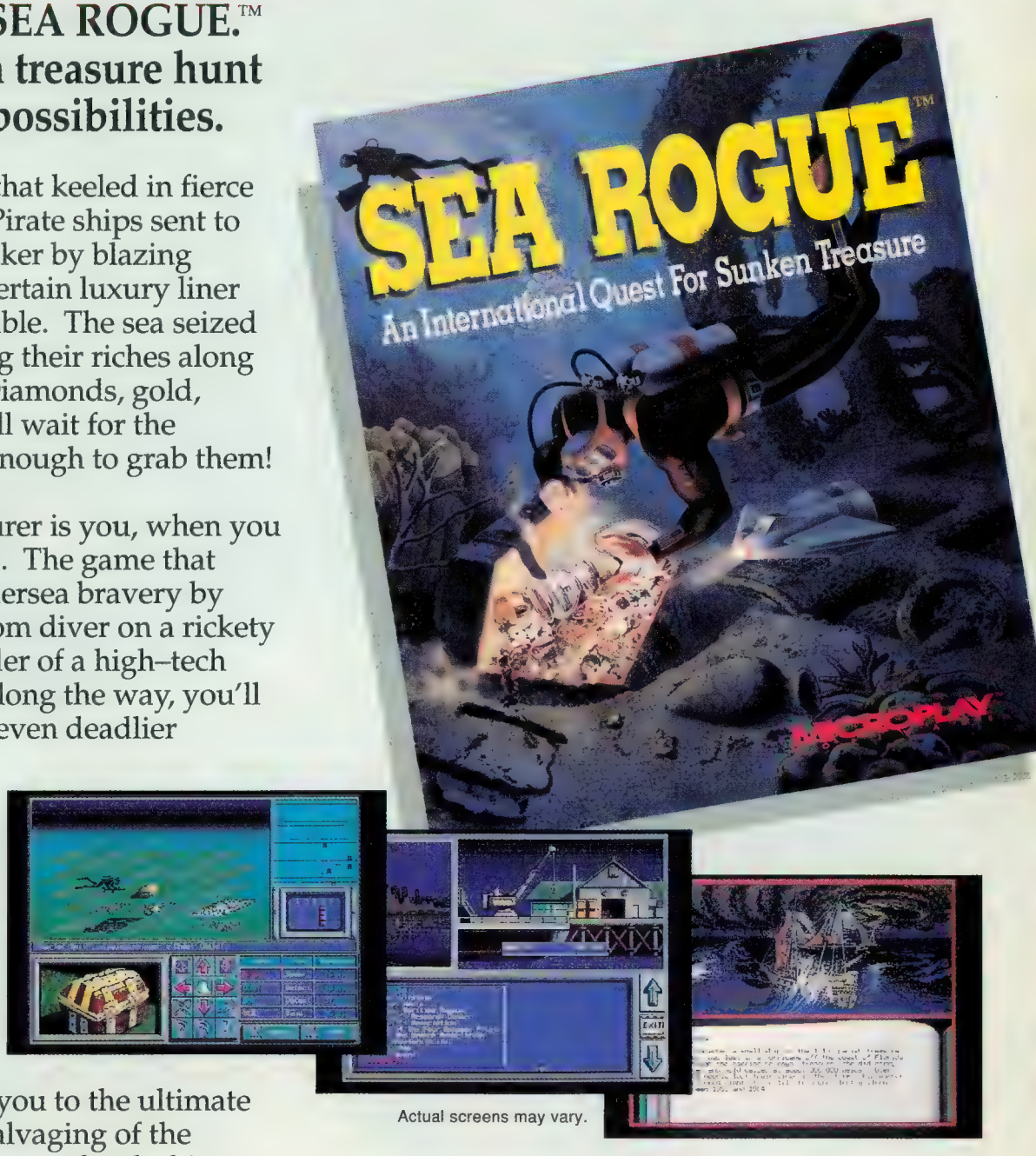

Actual screens may vary.

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* ILLUSTRATION BY LIONSGATE *

BOOB-TUBE BONANZA

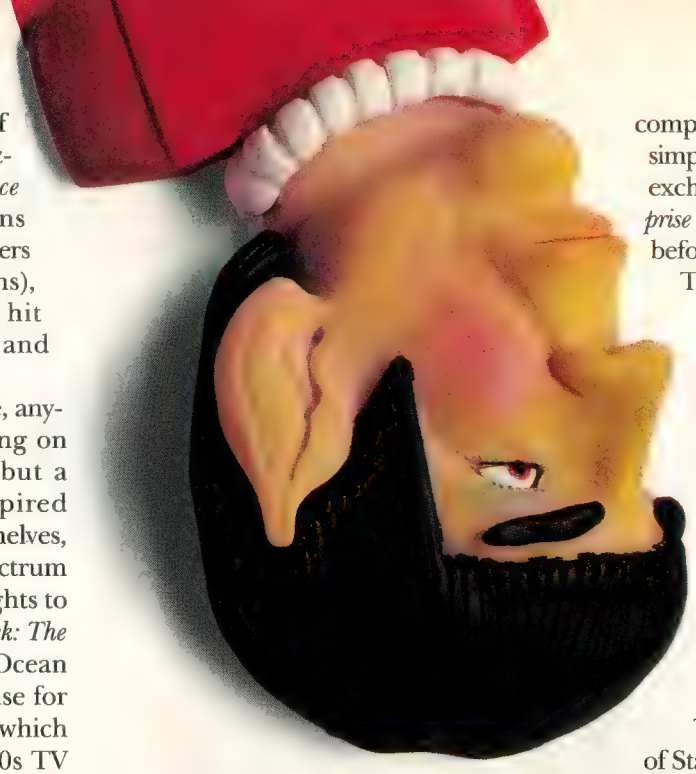
Nothing on television? Try your computer screen for a taste of the new shows and the oldies. Can Flipper: The Graphics Adventure, Night Gallery, and The Brady Bunch Meets Don Ho be far behind?

BY PETER OLAFSON

Even with a Fox among the chickens, the networks still do a good imitation of public-access programming now and then. And cable or no cable, come 3 o'clock on a summer Sunday afternoon, the boob-tube force feeds us such inspirational programming as Canadian football, saccharine cartoons like *The Happy Little Elves*, hair-restorer info-mercials, or maybe an unidentifiably obscure movie — Troy McClure in *Gladys the Groovy Mule*, say.

Turn on the computer, man!

Actually, computer-game makers haven't done much better. While every popular movie and its sequel seem to inspire a game — and if you think it's bad here, check out the game racks in Europe, where even bad movies get made into games — the small screen has traditionally inspired a correspondingly small share of titles.



You've probably seen many of them on the budget rack: quiz-show games (*Jeopardy*, *The Price Is Right*, *Family Feud*), cartoons (*Beetlejuice* and the Warner Brothers and Hanna-Barbera pantheons), and the occasional nod to a hit series (*Married with Children* and *Twilight Zone*).

Lately, that's changing. A little, anyway. There still may be nothing on TV on Sunday afternoons, but a schedule's worth of TV-inspired games are appearing on store shelves, and more are on the way. Spectrum HoloByte has picked up the rights to do a game based on the *Star Trek: The Next Generation* series, while Ocean has recently acquired the license for the movie *The Addams Family*, which was based in turn on the 1960s TV show. A popular program from England's ITV, *Knightmare*, has been released for the Amiga and ST by Mindscape UK, and given the growing overseas popularity of the IBM, it's a fair bet for conversion, too.

Can *Flipper: The Graphics Adventure*, *Night Gallery*, and *The Brady Bunch Meets Don Ho* games be far behind?

Star Trek: The Forgotten Fourth Season

Star Trek has already been a parent. The show, which ran three seasons from 1966–69, has spawned a string of 21 animated episodes, a slew of novels, six feature films, and a handful of questionable-quality computer games.

That last bunch has included text adventures (*First Contact*), adventure/arcade hybrids (*Star Trek V*), and space-combat games (the excellent shareware game *EGAtrek*). Of these, the newest and indisputably the best is Interplay's **Star Trek: 25th Anniversary**. It's the truest to the "feel" of the original series, and the most fun to play.

That "feel" is vital. It's the quality that makes a TV show special and worthy of translation to another format. You can draw the sets in VGA and rewrite the theme for the Sound-Blaster, but how do you re-create in bits and bytes the on-screen chemistry among characters? It's been done, and done splendidly — especially in Star Trek: 25th Anniversary. The feel of this new game is unerringly faithful, right down to Captain James T. Kirk's cocky strut, the skin-tight *Star Fleet* uniforms, and the dramatic music. This is clearly the work of people who know and love the show not just for its obvious appeal, but for its sublimely ridiculous moments, too.

In essence, Star Trek: 25th Anniversary has been designed as a miniature fourth season — a string of eight episodes, complete with titles and fly-throughs by the *Enterprise*. Fans of the original show will find the plots pleasantly familiar: a mine abandoned to demon-like creatures; a gang of pirates holding a Federation ship hostage; a research station infested with a virus deadly to Klingons and Vulcans. Each is a bit tougher than the one before, and each has its own atmosphere, its own set of puzzles, its own extensive script, and its own little world.

This is actually a space flight-and-fight simulator *and* a graphics adventure spliced together seamlessly. They're both top-notch. The space-flight sequence that opens each mission is one of the best I've seen in any game. The ships in Origin's celebrated Wing Commander series seem like colorful and vulnerable toys by comparison. Battles aren't just simple three-hits-and-he's-dead exchanges, either. The *Enterprise* takes a lot of punishment before it goes down.

The graphics adventure appears once combat is over and Kirk orders a landing party beamed down. No ship's captain ever stepped into so much harm's way as Kirk, but he's here, along with Spock, McCoy (the ship's feisty doctor) and a variety of red-shirted security officers (all of them semi-expendable, just as in the show).

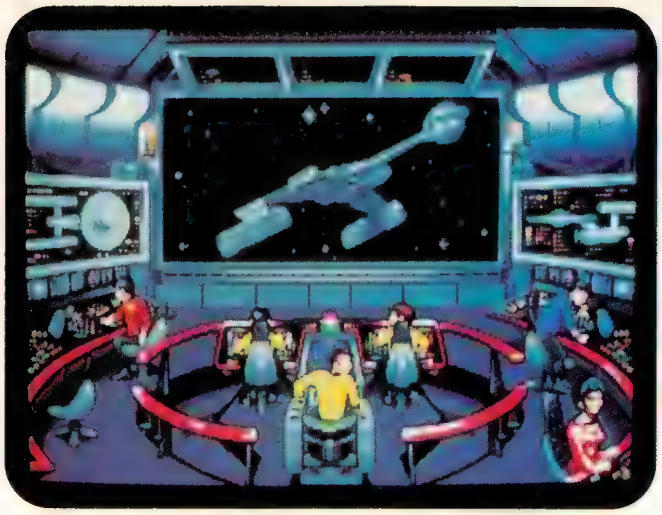
This is the heart and soul of Star Trek: 25th Anniversary. Once you've disembarked, you're ensconced in a VGA environment — not massive, but lusciously appointed — with a new command set, lots of things to examine, places to explore. You'll need to sort out what's going on and how best to solve it before you're returned to the ship. You can handle it just fine with the keyboard, but the mouse is more fun. Be sure to talk to everybody in every situation; characters don't simply spit back standard lines, but have distinctive and often useful things to say in each new context.

It's not simply a matter of completing your mission, either. That's not so tough. It's the way you do it that counts, for there are multiple solutions and many levels of success within them. The better you do, the more commendation points your crew accrues after the game reviews Kirk's report, and, consequently, the better they'll perform on later missions. Early success is critical to ensure later victories.

Besides, the more time spent in Star Trek: 25th Anniversary, the more you'll discover and celebrate the spirit of the show that lives on in these high-density disks. Every time I plunged back in to try something different, I learned something I hadn't picked up before: Spock and McCoy's répartée, the dullness of the security personnel, and even the exchanges that Kirk, Bones, and Spock always have at the end.

This game is so authentic that I felt sometimes as though I were watching an unaired episode of the original series. In terms of the hard-to-define "feel," Star Trek: 25th Anniversary is very nearly perfect.

The game does have a few oddities. Kirk strikes out for the next room on his own, with the rest of the cast appearing only when the scene shifts. (It feels as though they're saying, "Don't worry, Jim. We're right behind you.")



If you love Star Trek, you'll adore 25th Anniversary.

There seems no way to tell more than one character to perform the same action at the same time. And even with 622K of RAM available under DOS 5.0, I consistently ran into out-of-memory messages in the later stages of the first three scenarios (Interplay product support suggested that the expanded-memory driver needed to be optimized).

Even with such problems, I love this game. It made me laugh, it made me forget where I was, it made me remember, and it made me work. It almost made me hear voices.

Your Job, If You Choose to Accept It

Konami's **Mission: Impossible** game doesn't fare so well. The "feel" that makes Star Trek: 25th Anniversary such a wonderful romp is sadly missing here. Instead, what you get is a rather generic graphics adventure that fails to evoke its namesake. Too bad, too, as there just might have been a game here.

You remember *Mission: Impossible*. Peter Graves's Jim Phelps headed a team of crack covert agents fighting crime and international terrorism at the government's behest. They'd hatch elaborate plots to deceive and confound the opposition, turn evil against itself, then vanish as soon the bad guys realized they'd been duped. It wasn't a great TV show — the acting was flat and the IMF team did have a rather nasty habit of trampling on civil rights — but it was good for a few nervewracking moments. A game that could reproduce those qualities would be worth playing.

To be sure, the game's beginning is pleasantly familiar, if a bit on the muddy side graphically. The famous fuse burns down. White-haired Jim Phelps turns up in his sweater and has one of those code-word-laden conversations. The famous message (now supplied by a computer, and with digitized graphics instead of photos) self-destructs famously.

It seems that a fellow named Douglas Choi, arrested in the death of the owner of a large warehousing firm, has been released by a judge, despite evidence to the contrary. It's not the only murder of its type — nor the only time the suspect has been released — and there's the suspicion that something big is afoot. Who you gonna call?

You can create your own IMF agents or draft existing ones, and at this point things begin to seem a bit off. No Barbara Bain. No Martin Landau. No Peter Lupus or Greg Morris. No Lynda Day George or Lesley Anne Warren, even. (In fact, there are no female agents at all.)

And where did Phelps go, eh? Instead, you're presented with a collection of anonymous pics — some wearing such dour pusses that you have to wonder just whose side they're really on.

Then the game proper begins and you discover that your animated gang of four doesn't even look like the anonymous faces you've chosen. All of them have white hair — like Jim Phelps!

The game engine itself is promising, though. Your team starts off at IMF headquarters with a closetful of equipment and a computer; each agent has a portrait and a long list of stats and skills.

You can send them ranging over a decent-sized map of the city, and then zoom in for nicely drawn closeups of each location. What looks back from the screen is rather pretty — especially in the closeups of various locations, which have obviously been drawn with an eye for detail (though in EGA).

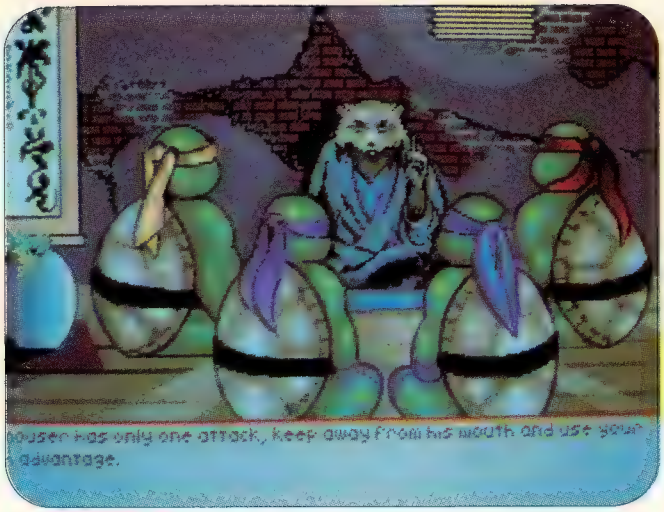
You'll also like the ability to redirect your agents separately — a realistic feature missing in far too many role-play and adventure games, in which parties go around together as though they're attached at the hip.

The overhead map scrolls smoothly, and there's some fun to be had bugging conversations, sending your agents around town, and checking out the various locations.

Finally, the IMF has become a bit more politic. I can't tell you how many times I tried to send an agent into a private home, only to be told that he didn't want to risk a breaking-and-entering charge.

But I kept waiting for Mission: Impossible to blossom — to be more than the rather tight-lipped game it starts out as — and it never did. There's something curiously dry about all this. It's as though the framework of a potentially interesting game had been put in place, but the guts — say, subgames on bugging telephones or making masks, in the fashion of Microprose's Covert Action — had been left out, leaving us with just a shell.

And a shell is what's here, with little of the depth and none of the real tension that accompanied the television series' best moments. You know:



It's the Green Ones to the rescue in Manhattan Missions.

Bart's bad to the bone in House of Weirdness and Arcade Game.

the point at which one of the team's marks learns something he wasn't supposed to, and it appears that the mission is about to blow up in everyone's face. Consequently, it's the kind of game you'll play around with — rather than just play — and eventually just leave alone.

Pizza Lovers

Arcade games are different. It's unfair to expect them to convey our mystical sense of "feel" when, by and large, you spend your time hitting an enemy with the best available weapon until he falls down and disappears. You can't capture much of a TV show's spirit when you're out walloping things. (And even if you could, you'd probably just earn an extra life.)

But because that's what the Teenage Mutant Ninja Turtles do — they're ninjas, remember? — they're ideal candidates for an arcade beat-'em-up.

Konami's **Teenage Mutant Ninja Turtles: Manhattan Missions** is a big, fun, beautiful game with a lot to do, lots of tough levels to work your way through, and lots of folks to hit with various martial-arts weapons.

It seems Shredder, the Turtles' traditional enemy, wants to take over Manhattan. He's sent criminals all over the island (and even to Brooklyn) to raise a ruckus; the greenbacks are out to stop Shredder and his minions.

You'll need some practice to get the hang of the game's many commands — which use both joystick buttons — but there's a practice mode available. Your pal Splinter will give you advice as well. If you get beaten up too badly, you can rest up for an hour to restore your strength. Don't rest too long, though. The clock is running and you have 15 missions to complete.

Just as invincible as the Turtles in the cartoons, your fearsome foursome never quite die, as there's a masked fellow named Casey Jones (hey, I just review 'em!) who appears in the middle of the fray to rescue the Green Ones when they're headed for a loss. You can save your game and select missions from a map. (If one's a bit too tough, another may do the trick.)

And that lends Manhattan Missions the pleasant sense of a step-by-step process. The VGA screens are lively, and the action is fierce. Nice going, totally amphibious dudes!

Go Ahead, Have a Cow

VGA probably wouldn't do much for America's favorite family-with-an-overbite, *The Simpsons*. Cartoonist Matt Groening draws his first family — the rock-steady Marge, the existential Lisa, pacified Maggie, dumb-as-dirt Homer, and bad-to-the-bone Bart — in an appealingly basic style, after all. Making them look too cute on the computer might sacrifice some of their appeal. Good news, then. That look — and a very nice taste of the Simpsons' appeal — is preserved in Konami's two new *Simpsons* games: **Bart's House of Weirdness** and **The Simpsons Arcade Game**.

Before we go on, a confession. I have a Bart Simpson nightlight on one wall of my office and a *Simpsons* calendar on the other. The shelf between them has four *Simpsons* dolls, and the shelf on the other side of the room contains four *Simpsons* videos. I have spasms in which I start to imitate Homer's "Ooooo, doughnuts" and my wife looks at me with dead eyes that say, "That's very attractive, Peter."

Yup. You're listening to an addict. This small personality flaw — look for me on the *Oprah* episode subtitled "Men Who Love *The Simpsons*" — puts me in a unique position to evaluate these two arcaders.

Konami calls House of Weirdness an action adventure, but it's really an arcade game with level selection and a few nice nonessential toys thrown in. The house of weirdness is — surprise — the Simpsons' own home. Bart's been grounded, but that never stopped him from doing whatever he wanted. The window takes him to the street, the door to the treacherous attic and cellar.

And the closet takes him into either an *Itchy & Scratchy* cartoon in which the sadistic cat and mouse (a *Simpsons* version of *Tom & Jerry*) turn the weapons they usually devote to each other on friend Bart, or up against those space aliens who, you may recall, turned up in one of the Halloween specials.

One of the real charms of House of Weirdness is Bart's room itself. It's a big toy box. Here you can play any of the musical themes within the game, rest up, save your game, or sock the Buffalo Bob punching bag. If you have a sound board (at least Sound Blaster), you can hear Bart's digitized voice announce, "All right, man, let's go for it," when he embarks on a new level.

It's too bad Bart's House of Weirdness isn't a full-blown adventure, because the *Simpsons* show has a definite "feel," and uses one of the most distinctive casts around. They're definitely worth preserving on hard disk.

The other offering, The Simpsons Arcade Game, is just that: a pure arcade game, with no real amenities. But then, none needed. In this case, just being a *Simpsons* game is enough. And in its modest way, it's quite charming.

It doesn't especially cling to the characters established in the show, and that may put purists off a bit. Homer has a collision with Smithers — henchman of Homer's sinister boss, Montgomery Burns — and the gem Smithers has just stolen pops from his grasp and into the mouth of Maggie, the Simpsons' speechless, pacifier-sucking, constantly-falling-down baby. (Smithers? A jewel thief? Not on the *Simpsons* I know.)

At any rate, this Smithers is about as bright as Homer, for rather than simply plucking out the gem and going about his nasty business, he kidnaps Maggie. You chose one of the four remaining Simpsons — all blinking madly — to send on a horizontal rescue.

It's cute stuff in the time-honored Double Dragon mold, and with a distinct Simpsonian flair. Just picture this: Marge swings her vacuum cleaner and makes her growl face, Homer (this guy really is good for nothing, isn't he?) punches ineffectually, Lisa uses her jump rope, and Bart maneuvers his skateboard.

The skateboard business is extremely well animated — though a bit harder to control than the other characters's weapons. You'll have better luck with Lisa and her easier-to-aim jump rope.

The scenery's lots of fun to look at — that's a real joy of this game — and even mildly interactive. For instance; at the beginning of the game, you can try to retreat into a store, but you'll get knocked down by the electronic door if you do. Next store over there's a kid playing a video game. Familiar faces from the series are all over the place; the school-bus driver and Dr. Marvin Monroe run adjoining food stands on the second level. Rather than just inserting the standard arcade power-ups, the designers send obscure characters carrying strength-restoring hamburgers. When one of the four loses a life, they fly back in as superheroes.

See what I mean? *Simpsons* fan or not, it's hard not to be charmed by stuff like this. While not rigorously faithful to the series, the artwork transports you from the television to the monitor screen effortlessly.

The intros to both games are drawn from the show's own introduction, but don't recycle any of the same material. How can you dislike a game that has Lisa saying, "Embrace nothingness"? And it's interesting to note the presence of Binky the one-eared rabbit from Groening's *Life in Hell* comic strip. Is Binky the next creation destined for prime time?

The problem with The Simpsons Arcade Game is that, as in most beat-'em-up arcade games, beating things up gets monotonous. It might have been nice to have something other than the standard end-of-level "boss" — albeit a *Simpsons*-style "boss" — to break up the flow. Why not take a cue from the kid playing the video game and include some of the parodies that regularly appear on the show — Larry the Looter, Touch of Death, the anonymous boxing game Bart plays with Homer, and of course, the blast-grandma-with-the-shotgun game? The blow-up-the-balloon game used at the end of each level is pretty flimsy stuff for a family as close to the edge as the Simpsons.

Then again, if you do get bored, there's always the TV itself. Let me check. I think Troy McClure in *Calling All Quakers* is on tonight . . . . ❑

PRODUCT INFORMATION

Mission: Impossible
Konami Inc.
900 Deerfield Parkway
Buffalo Grove, IL 60089-4510
(708) 215-5111
$49.95
640K IBM PC or compatible
768K Tandy TL
CGA, EGA, VGA, MCGA, Tandy 16-color
supports AdLib, Roland sound boards, Tandy sound
hard-disk drive recommended

The Simpsons Arcade Game
Konami Inc.
$49.95
640K IBM PC, Tandy, or compatible
EGA, VGA, MCGA, Tandy 16-color
supports AdLib, Sound Blaster sound boards, Tandy sound joystick optional

The Simpsons: Bart's House of Weirdness
Konami Inc.
$49.95
640K IBM PC, Tandy, or compatible
EGA, VGA, MCGA, Tandy 16-color
supports AdLib, Roland, Sound Blaster sound boards, Tandy sound joystick optional

Star Trek: 25th Anniversary
Interplay
3710 South Susan
Suite 100
Santa Ana, CA 92704
(800) 969-4263
$59.95
640K IBM PC, Tandy, or compatible (10 MHz or faster)
EGA, VGA, MCGA, Tandy 16-color
DOS 2.1 or later
supports AdLib, Pro Audio Spectrum, Roland, Sound Blaster sound boards

Teenage Mutant Ninja Turtles: Manhattan Missions
Konami Inc.
$49.95
640K IBM PC, Tandy, or compatible
EGA, VGA, MCGA, Tandy 16-color
supports AdLib, Roland, Sound Blaster sound boards, Tandy sound joystick optional

Is MPC ready for prime time? Whether you start from scratch or build on what you have, it'll at least bring you two steps closer to the ultimate game machine.

MULTIMEDIA MADNESS

SO YOU THINK YOU'VE GOT A hot computer for games. You've got a fast 386, a bright VGA monitor, scads of RAM, a huge hard drive — and you just shelled out a yard or so for a Sound Blaster sound card. You've got it all.

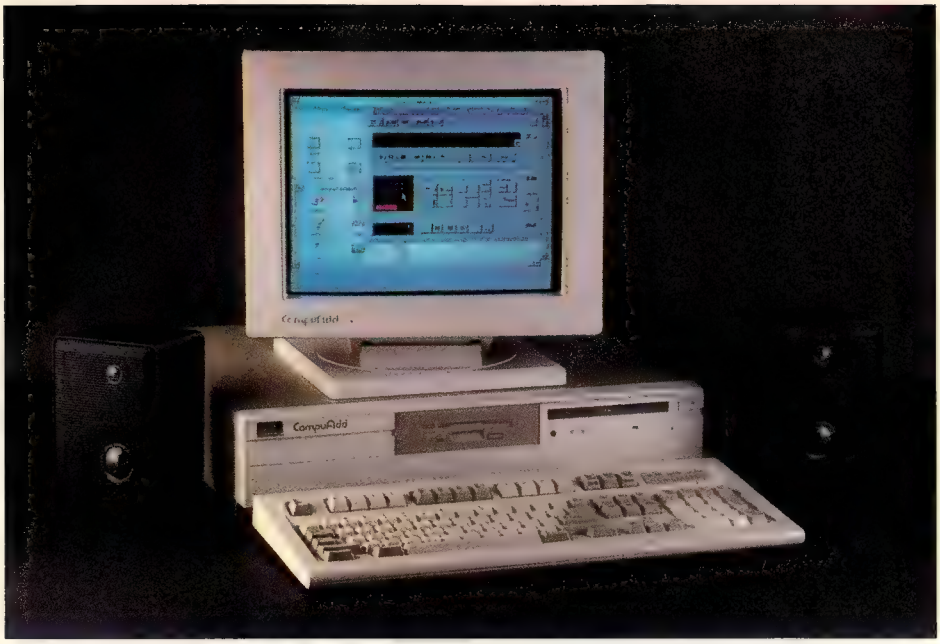
Wrong. There's a group of PC makers and software sellers who say your computer can't cut the mustard. You're not having nearly enough fun — all because you don't have *multimedia*, the new Holy Grail of computer entertainment. These people want to give your games quality and long-playing sound, add a thousand new levels to your favorite adventure, and spice up your arcade thrills with life-like images and near-photographic-quality scenes. All's not lost, though. Chances are, your beefed-up home system is only the slightest bit shy of being multimedia ready.

What's in a Name?

Everyone, it seems, has a different idea of just what *multimedia* means. Microsoft, the powerhouse PC developer, for instance, thinks that multimedia means Windows, plus some. It wants to entice you into multimedia by building on what you already have, which isn't a bad idea when we're all trying to stretch dollars as far as a new rubber band.

Because Microsoft is such a major force in the PC world, we tend to listen. That's one of the main reasons MPC, or *multimedia personal computer*, is the multimedia standard on the fast track toward acceptance among hardware

By Doug Barney
Illustrated by Robert Morrissey



CompuAdd's 320scMPC computer: the all-in-one multimedia solution.

manufacturers, software developers, and Joe and Jane Consumer, too.

As you may expect, Microsoft's strategy revolves around a version of **Windows**, the default PC graphical user interface that includes extras to handle sound, CD-ROM, and animation. When you add the following products to **Windows with Multimedia Extensions** (MPC's underlying software), you don't have just any machine, but one that meets the single multimedia standard — MPC:

- a PC with at least an 80386SX microprocessor
- 2 megabytes or more of RAM
- a 3.5-inch 1.44-megabyte floppy-disk drive
- a 30-megabyte or larger hard-disk drive
- VGA graphics
- a mouse
- a sound card that meets MPC specs
- a CD-ROM drive with a sustained transfer rate of 150K per second or better, and an average seek time of less than one second

And that's exactly what landed in my dining room when CompuAdd rushed out its **320scMPC** microcomputer.

Usually a computer's packed into two or three boxes, with the extras going for the keyboard, monitor, and a couple of power cords. Unpacking an MPC system is a lot different.

Rummaging through the CompuAdd packing, I found more wires and cables and secret boxes than I ever thought possible. One box contained a couple of hefty black speakers and included speaker cables. Another bag contained a tiny microphone. A thin box held the CD caddie. And everywhere, it seemed, there were disks.

After spending ten minutes or so hooking up and plugging in, I hit the switch. The system rumbled to life as the speakers crackled and the disk drive spun up to speed.

The 320scMPC system comes with Windows, and its Multimedia Extensions are already rigged on the hard-disk drive, so you're spared the pain of installation. I had never used Windows 3.0 before, and had only bad memories of its older cousins running

Multimedia Notes: Pros and Cons

Windows Treats

Windows 3.0 with Multimedia Extensions 1.0 offers a few treats that the more-pedestrian version of Windows omits. Instead of flipping through a fat, confusing manual to find out how to open a window, for instance, the multimedia version of Windows includes HyperGuide, an on-line help system on CD.

Windows with Multimedia Extensions also includes Music Box, which lets you play audio CDs from your CD-ROM drive, even when you're doing something else. You can control tracks, tone, and volume.

Another accessory, Media Player, lets you play music, recorded sounds, animations, and MIDI files without booting a more-dedicated program. And with Sound Recorder you can record sounds, then increase the volume, play them fast or slow, or even backwards. If only we'd had that when Abbey Road came out!

Multimedia Beats TV — Not!

As hot as MPC is, that standard's still a fairly low-level form of multimedia. Although it includes the VGA graphics game players are accustomed to and offers phenomenal sound, MPC can't handle full-motion video without a few tricks and a lot of additional dollars.

To handle video, you've got to tie in a video source (VCR, camera, laser disc), and buy some extra hardware. You can view video and play with it, but it won't be part of the game, not yet. It'll be a few years before you can interact with video — meaning barrel down a video rendition of Highway 1, for instance, in your fire-engine-red Ferrari.

A few firms are taking the first, early steps. Microsoft is supporting something called Audio Video Interactive (AVI), which provides 15 frames per second of animation or digital video at a resolution of 160 by 120. This isn't yet available as part of MPC specifications, nor is it exploited by developers. Don't fret, though. Other multimedia formats — CD-I comes to mind — are still a ways away from full-screen, full-motion video, too. — D.B.

on slow machines. On the 320scMPC, Windows was far snappier, and had a more elegant look, though it still offered some annoying pauses at simple operations such as pulling down a menu.

This machine is a solid computer in its own right, featuring a 20-megahertz 386SX microprocessor, 2 megabytes of RAM, an 80-megabyte hard-disk drive, and solid VGA graphics and monitor. Top thatoff with the multimedia extras, and you've got a game system that can play anything on the shelves — and anything that will be on the shelves this year or next. The 320scMPC includes a CD-ROM drive with a 380-millisecond average access time, small stereo speakers, a microphone, and software ranging from Adobe Type Manager and MacroMind Action to musical clips from Voyetra. How much for this dream PC? $2695 for everything.

That's not cheap, not when you can buy a loaded 486 clone with more RAM and a bigger hard drive for around the same price. But by buying the complete package, an MPC machine that's ready to plug in, turn on, and run, you take all the guesswork out of compatibility.

If you're willing to do some of the work yourself, or if you already have a credible computer sitting at home, consider one of the many multimedia upgrade kits now available. The hassles may pale in comparison with the money you'll save. A system comparable to the 320scMPC with a you-install upgrade kit might save as much as $500.

Multimedia in a Kit

Plenty of companies, from CompuAdd to Tandy to Philips, would love to sell you a complete MPC system. If you're in the market for a new home computer, it's not a bad way to go. Systems range from about $2000 to more than $5000. But you can get there for less.

Because you're reading *PCGames*, you probably have a decent PC game machine already. All you need is an upgrade strategy. A handful of vendors — some computer manufacturers, others primarily makers of audio boards — offer upgrade kits that will turn a robust PC into a multimedia monster. These kits assume that your PC features most of the MPC specifications, such as a 386SX or faster microprocessor, VGA graphics, a couple megabytes of memory, and a mouse. For less than $1000, kits pass along the sound board, CD-ROM drive, and the Windows software to make it all cook. (For details on two examples, take a look at the reviews of the **CompuAdd Multimedia Upgrade Kit** and the **Media Vision Multimedia PC Upgrade Kit** in the special section following this feature.)

Sound Side

The biggest difference among the upgrade kits now available is the sound. Media Vision's sound is based on its own **Pro AudioSpectrum**, while Creative Labs' kit comes with its **Sound Blaster Pro**. Kits from Tandy and CompuAdd are equipped with each company's own audio board.

None of them, thank goodness, is just a simple base-level sound board on a par with the original **AdLib**. At the least, and abiding by MPC specifications, these sound cards can produce digitized speech and reproduce stereophonic sounds.

Some kits come with a software/hardware mix that lets you play with sound, not just play it. Want to write your own songs, jam with a MIDI keyboard, or edit weird voice clips? Let your imagination soar — the possibilities are exciting and virtually limitless if you've got the right equipment.

Multimedia Meanings

CD-I (COMPACT DISC INTERACTIVE). A multimedia format developed by Philips and Sony that accesses digital data, still images, audio, and to some extent video from a compact disc. Philips uses this technology in its Imagination Machine, a VCR-sized box designed for consumers.

CD-ROM XA. An enhanced version of CD-ROM that interleaves animation and sound so that you can access both at the same time. This is a requirement for MPC-compatible CD-ROM drives.

CDTV (COMMODORE DYNAMIC TOTAL VISION). Similar to CD-I, except CDTV is based on the Amiga personal computer.

DIGITAL VIDEO. Video images based on computer data.

DVI (DIGITAL VIDEO INTERACTIVE). A hardware-assisted means of compressing and decompressing digital video so that it can be displayed and manipulated on a computer.

MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE). The standard for connecting computers and high-quality electronic musical instruments.

MULTIMEDIA. Take your pick from dozens of definitions. We think it's the combination of various media — such as sound, graphics, text, animation, and video — as processed and produced by a personal computer.

SAMPLING. The process of recording analog sounds and converting them to digital form so that you or your favorite game publisher can store, replay, and manipulate them on a PC. Sampling rate refers to the speed at which this information is captured. The faster it's captured, the better the sound. Sampling is measured in kilohertz (44.1KHz is the standard for CD-quality sound). Slower sampling rates save storage space, however.

Guide to the Upgrades

CompuAdd Multimedia Upgrade Kit
CompuAdd
12303 Technology Boulevard
Austin, TX 78727
(512) 250-2530

Includes Microsoft Windows 3.0 with Multimedia Extensions 1.0, MPC-compatible sound board, internal or external MPC-compatible CD-ROM drive, two speakers, and all necessary cables. $1069 (internal CD-ROM drive), $1295 (external CD-ROM drive), $425 (basic kit without CD-ROM drive).

Creative Multimedia Upgrade Kit
Creative Labs, Inc.
2050 Duane Avenue
Santa Clara, CA 95054
(408) 986-1461

Includes Microsoft Windows 3.0 with Multimedia Extensions 1.0, Sound Blaster Pro sound board, internal or external Panasonic-made MPC-compatible CD-ROM drive, all necessary cables, and four CD titles. $849.95 (internal CD-ROM drive), $949.95 (external CD-ROM drive).

Media Vision Multimedia PC Upgrade Kit
Media Vision
47221 Fremont Boulevard
Fremont, CA 94538
(800) 348-7116

Includes Microsoft Windows 3.0 with Multimedia Extensions 1.0, the Pro AudioSpectrum sound board, an internal Sony CDU-541 CD-ROM drive, all necessary cables, and two CD titles. $995. Media Vision also sells its CDPC unit for $1295, which includes a 100-watt amplifier, two internal stereo speakers, a CD-ROM drive, and sound card, all packed into an external case that sits between your computer and monitor.

Tandy Multimedia Upgrade Kit
available through
Radio Shack stores nationwide

Includes Microsoft Windows 3.0 with Multimedia Extensions 1.0, a sound board, Tandy CDR-1000 internal CD-ROM drive, and all necessary cables. Price not available at press time.

Some boards, for example, allow sound editing down to the waveform level, let you invent instruments, and make it possible to sample sounds with extraordinarily high quality.

The CD-ROM Conundrum

The biggest boon in multimedia for gamers comes in two letters — *CD*. Because these shiny plastic platters can hold up to 600 megabytes of information, games can offer more levels, more graphics images, and mind-boggling, spine-tingling, ear-busting sound. Better yet, you don't have to juggle a dozen floppies to get all these goodies. And because no one can copy CD-ROM (not yet, anyway), you don't have to fumble with those ridiculous code wheels and other galling forms of copy protection.

Not everything's rosy, though. CD-ROM drives are slow. *Sloowwwww.* Think of it as a quiet 600-megabyte floppy-disk drive, and you get the idea. To complicate things, not all CD-ROM drives are MPC compatible. If you're in the market for a CD-ROM drive, it pays to get one that meets MPC specs. That way you'll be able to play MPC-labeled software and the stuff that still comes in DOS flavor.

Tandy's **CDR-1000** is one of the cheapest MPC-compatible drives around. With an average access time of 800 milliseconds, it certainly isn't the fastest drive on the market (hard-disk drives usually feature access times of less then 20 milliseconds), but once it finds what it's looking for, it transfers data at a decent clip. (Tandy also promises that this drive will support Kodak's **Photo CD**, a system scheduled for summer release that lets you transfer snapshots and slides to a compact disc, so that you can show off your boring birthday pictures on your PC.)

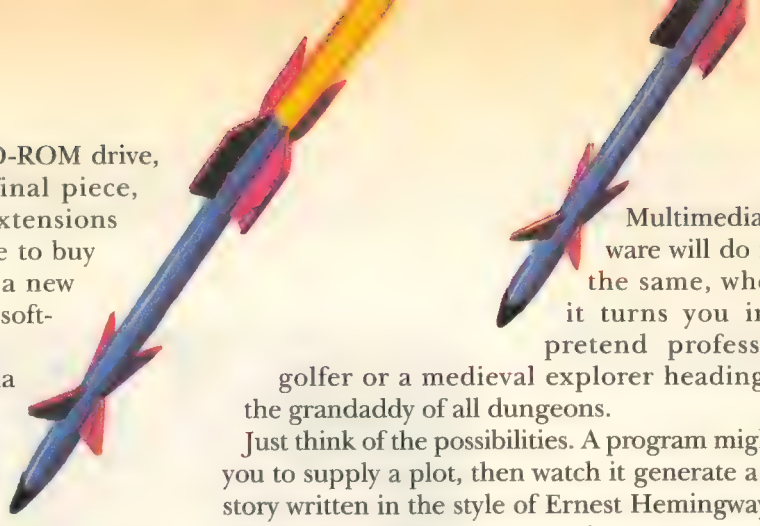
Keep in mind that a good many CD-ROM drives don't cut it, so be sure to check for the MPC label. Those in the MPC know recommend Sony, which has a range of compatible drives, led off by the company's **CDU-541** internal CD-ROM drive.

Where's Windows?

In the early days, Microsoft just about gave away Windows. You could buy it anywhere cheaply. In fact, Windows applications often came with a run-time version of the system, admitting that few PC users worked with this interface.

There's a different problem with Windows' Multimedia Extensions, the collection of drivers and other software necessary to run an MPC package. Microsoft has a one-year exclusive arrangement with the dozen or so members of the MPC consortium under which they, and pretty much only they, supply the software.

That means that if you already have a system with



a compatible sound card and a CD-ROM drive, chances are you can't buy the final piece, Windows 3.0 with Multimedia Extensions 1.0, at your local dealer. You have to buy an upgrade kit, or at minimum, a new CD-ROM drive, to get the system software you need.

Microsoft will include multimedia sound extensions in Windows 3.1, though, which is due out this spring. It should include the necessary CD-ROM drivers. (Microsoft had just settled the issue at press time.)

Another problem is Windows' installation. While this graphical user interface and operating environment promises Macintosh-style ease of use, it's no snap to add it to your system. That may be another good reason to consider a ready-to-run MPC computer — Windows will be rarin' to go.

I'm the Baby — Gotta Love Me!

MPC, like every other multimedia standard, is in its infancy. In fact, it's so new that there are only a scattering of games now out on the market. As with all new technologies, this Catch-22 makes it tough for most of us to decide whether we should break out the credit card for an upgrade kit or a complete system.

Even though we're just now seeing the first MPC games trickle in, I'm betting on MPC's ultimate success. People generally like to spend their disposable income trying to fulfill a fantasy. Buying a camcorder makes you feel like Stanley Kubrick, a motorcycle lets you pretend to play Marlon Brando or Peter Fonda, a guitar makes you think you're Jimi Hendrix. Multimedia software will do much the same, whether it turns you into a pretend professional golfer or a medieval explorer heading into the grandaddy of all dungeons.

Just think of the possibilities. A program might ask you to supply a plot, then watch it generate a short story written in the style of Ernest Hemingway. You could sketch a figure, then see the computer paint it as Picasso would. Hum into a microphone, and the melody would metamorphose into a guitar riff laid atop an existing CD track.

If multimedia's hardware grew up some, the opportunities would be even greater. MPC's specifications are a good start, but they could be jazzed up a bit. MPCs need dedicated hardware systems to speed up every facet of multimedia. There are off-the-shelf chips just itching to do the job. How does 16-bit (the same quality as audio CDs) sound as the standard? Why not add a dedicated TI 34020 graphics processor to quicken animation? And maybe add an improved CD-I format as the CD standard, so that we can get full-motion digital video from disc? Or how about even a multiformat system with a built-in laserdisc player with random access? (And why not an ice maker while we're wishing?)

Until then, you'll just have to make do with games that sound like an expensive stereo system, games that forgo copy protection, and games that feature 600 megabytes of levels, images, and tricks. Not a bad deal at all. ❑

PRODUCT INFORMATION

AdLib
AdLib Inc.
220 Grande-Allée East
Suite 850
Quebec City, Quebec
G1R 2J1
Canada
(800) 463-2686
$119.95

CDR-1000
Tandy
available through Radio Shack stores nationwide
$399.95

CDU-541
Sony Corporation of America
655 River Oaks Parkway
San Jose, CA 95134
(800) 352-7669
$799.95
$199.95 interface

Microsoft Windows, $99.95
Windows 3.0 with Multimedia Extensions 1.0, $59.95
Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6393
(800) 426-9400

Pro AudioSpectrum
Media Vision
47221 Fremont Blvd.
Fremont, CA 94538
(800) 845-5870
$389
640K IBM XT/AT, 386, 486, PS/2, or compatible
DOS 3.0 or later

Sound Blaster Pro
Creative Labs
1901 McCarthy Blvd.
Milpitas, CA 95035
(408) 428-6600
$299.95

IBM PC or compatible
512K RAM
DOS 2.0 or higher
CGA, EGA, VGA, MCGA
EGA or VGA recommended

320scMPC
CompuAdd
12303 Technology Boulevard
Austin, TX 78727
(800) 627-1967
$2695

BATTLECHESS MPC

By Tom Carlton

A new dimension for an old favorite — BattleChess in animated 3D, with realistic stereo sound effects.

The King is dead — long live the King. That's about the only thing the new multimedia version of BattleChess won't sound out for you.

Interplay has recast the somewhat sedentary game of chess into a 3D animated medieval battlefield. Add a dynamic stereo soundtrack — from brass and percussion fanfares to Gregorian chants — and you've got an amplified version of an award-winning game.

This compact-disc-based multimedia PC (MPC) version of BattleChess may offer the traditional board and pieces, even follow the laws of chess as formulated by the World Chess Federation, but similarities to the game played with plastic pawns stop there. BattleChess casts the 32 players in a medieval period piece filled with animated jousting, where warriors engage in hand-to-hand combat, where armor clashes, where trumpets sound, where drums and cymbals crash.

From the slothful king to the swivel-hipped queen to the knights in clanking armor, each piece wears its own distinctive animated personality. Pile on the extras — savage weapons of death, the gasps of the mortally wounded — and chess takes on a new dimension.

Stunning Detail

Graphic detail and realistic animation set the stage for the characters. Each piece's personality is believable and fitting.

The designers have taken meticulous care with every piece, from the brilliant costumes to the recorded grunts, groans, gesticulations, and insults of combat. Sound effects send the crash of sword to shield, the clang of steel against steel, the clapping of hands, and the screams of pain and death to your headphones or speakers.

It may seem whimsical in the reading, but in practice, you'll find yourself grimacing at the combat.

Is That a Sword in Your Pocket?

With more than 100 megabytes of 256-color graphics images (all without a peek of a pixel) BattleChess' results are simply stunning. That cavalier knight provides an excellent example of the attention paid to detail. He lurches across the court in a lustrous suit of armor.

The blonde-maned queen, a woman with the voluptuousness of Elvira and the voice of Mae West, provides a thorough explanation of her powers — both seductive and destructive — in the opening tutorial. Each piece strides forth to present itself in this section, a part of the program that captivated my 6-year-old daughter as quickly as it did me. She'll be playing chess years before the age I was when I moved my first pawn.

Novelties

Several new amenities in this MPC version of BattleChess permit players to control sound and animation. While previous versions let you turn off the sound, now you can mute the footsteps or the music and battle sounds separately. By switching from total animation to battle animation only, or even no animation, you can use a 3D environment that makes for a fast, smooth, uninterrupted game on your PC.

You must run the Windows version of BattleChess in standard mode to get sound, so you forgo the virtual memory and multitasking of non-Windows applications. Even though this MPC version runs in Windows' enhanced mode, you still must exit the game to return to the graphical

environment. For some this may be an improvement, because you don't have to reboot to return to enhanced mode (but it doesn't let you multitask or switch tasks). For others, though, it's a loss, because you're no longer able to play chess and multitask with Windows applications.

You'll achieve BattleChess' highest performance level when you install animation sequences on a hard disk. This single data file requires more than 32 megabytes, but you'll notice a definite improvement in the animation. You can even tweak the system if you need to synchronize the sound with the animation.

Nothing Lost, Something Gained

Retaining the intellectual challenge and entertainment qualities of its floppy forebears, BattleChess MPC resonates with a spectacular new array of sights and sounds. The new tutorial, sound in content and entertaining in form, provides an example for other packages — including business applications — to follow.

For those cross-town tournaments, modem capabilities let players compete within or outside of the MPC format. After seeing the sensational visuals and listening to the just-as-dazzling audio track, though, your intellectual rivals may have to have the CD.

BattleChess MPC is a cross-over game. It crosses the generation gap, making chess accessible and enjoyable to all ages; it leads the way to animated tutorials; and it's one of the best reasons for upgrading your home computer to MPC specifications. This new multimedia version of BattleChess has lost nothing, and gained much.

Interplay Productions, Inc., 3710 South Susan, Suite 100, Santa Ana, CA 92704, (800) 969-4263; MPC-compatible 2MB IBM PC, Tandy, or compatible; 386SX or faster; DOS 3.1 or later; Microsoft Windows 3.0 with Multimedia Extensions 1.0 or later; VGA; 30-megabyte or larger hard-disk drive; CD-ROM drive with sustained 150K/sec transfer rate, average seek time 1 second or less; MPC-compatible sound board (AdLib Gold, Pro AudioSpectrum, Sound Blaster Pro); requires mouse; $79.95

KING'S QUEST V MPC

By Tom Carlton

You're sure to hear voices when you play the newest incarnation of King's Quest V MPC, Sierra's stalwart role-playing adventure. That's because this version comes on a single, shiny compact disc, not in a boxful of floppies.

In almost every detail of the plot, the story, and the characters, the game remains the same, giving you a touch of spice and a slice of life in the fantasy lane. What separates this multimedia version of King's Quest V from its more pedestrian floppy cousin is the sound — the sound of voices and of music — and the fluid animation that opens up the screen and turns your PC into a miniature home theater.

Computer games may have been built on wondrous images, flights of animated fancy, and even sweeping musical scores, but nothing compares with the potential of multimedia to bring even more dishes to the entertainment table.

Sounds Good

Slide the CD into your properly equipped PC and you'll hear the whirling, thunderous storm that sucks up the King's castle and family. When Graham returns home to find this devastation, he, and you, barely hear the hooting of an owl. As he spins around to confront Sedrick, who tells the King about the wicked work he saw, Graham replies (I mean really replies, in a voice straight out of film), "Why? Why? Why would Mordak do this?"

This game introduction is a visual and audio feast — well animated, beautifully illustrated, and enhanced with music and extensive spoken narrative. In other places as well, this multimedia PC version of King's Quest V is just as striking. When Graham visits the Baker brothers' bakery, for instance, he stands, waiting, in the pie-filled room while a baker in the back room kneads dough. Meanwhile, the baker's brother talks to a

Theater-style animation and great sound give you a slice of life in the fantasy lane — King's Quest V MPC.

customer at the front counter, and in the background, mandolin music plays. These realistically animated characters, living in richly detailed, ecologically varied settings, will capture your imagination.

But it's the voices that set this product apart from a disk-bound King's Quest. It means no more reading from dialogue boxes. Some King's Quest fans fell ill when they discovered that King's Quest V replaced typing with pointing. But replacing written dialogue with a wide spectrum of digitized voices won't cast a similar spell over these fans. In fact, the addition of such a variety of dialects and voices alters the game experience not a whit, though it does make the adventure more interesting.

When you read dialogue boxes you read with one voice — yours. But when the toy maker pipes up with a German accent and his assistant sounds like someone from Bombay, characters assume a richer life of their own. Conversations with the fortune-teller make you feel the enchantment of Bohemia. Australian, Scottish, and southern and midwestern U.S. dialects add color to characters. Age and sex of a character become part of voice mannerisms, and the intonations give you a sense of how benign or dastardly he or she may be.

Looks Good, Too

The MPC version — King's Quest V on CD runs under both DOS and MPC — offers an easy-to-use Windows interface with several interactive tools. Eight icons on the icon-button bar at the top of the screen run the adventure. Five icons make Graham walk, look, do, talk to, and use hand-held items.

If you have a two-button mouse, the left button calls an active icon tool, while the right button cycles through all five icons quickly. This makes it a snap to move through the landscape while talking and listening to other characters, grabbing drinks of water or gold coins, opening doors, or entering buildings.

The other three icons give help, let you pause, and show you your inventory. The help button gives you information only about the interface, not the game. The pause button lets you calibrate character movement, speed, sound volume, and the game's level of detail. The inventory button lets you select an item from your inventory. You can save and restore 20 games per directory.

With the elimination of dialogue boxes, the screen returns to a cleaner, more interesting look. Some of this newfound space is used for talking-head-style boxes — when a character speaks, an animated face appears in close-up. Effective facial expressions, which are synchronized to the voices, develop each personality still further.

Other Notables

If you haven't decided to upgrade your 386SX (or better) system with the new MPC environment, don't despair. Sierra's success isn't just luck. As noted, this CD-ROM product is a dual DOS and MPC (Windows) version.

The double format means that if you already have a CD-ROM drive, you don't have to run out and update your PC (or even worse, buy an MPC computer) to enjoy the new dimensions of King's Quest V. If you haven't bought into CD-ROM, though, and your audio card is behind the times, you should take a look at an MPC upgrade kit. MPC machines are compatible with both DOS and Windows, the two prominent multimedia formats.

This luxuriant visual and auditory adventure offers compelling entertainment. For King's Quest mavens, it's a must. For others, it's a good reason to consider the move to multimedia.

Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; MPC-compatible 2MB IBM PC, Tandy, or compatible; 386SX or faster; DOS 3.1 or later; Microsoft Windows 3.0 with Multimedia Extensions 1.0 or later; VGA; 30-megabyte or larger hard-disk drive; CD-ROM drive with sustained 150K/sec transfer rate, average seek time 1 second or less; MPC-compatible sound board (AdLib Gold, Pro AudioSpectrum, Sound Blaster Pro); requires mouse; $69.95

COMPUADD MULTIMEDIA UPGRADE KIT

By Lafe Low

Just what we all need is another lame buzzword to learn. Right.

Multimedia may be the latest term to flit through PC gaming circles, but while it's difficult to put a precise label on what multimedia is and what it can do, it's anything but lame.

When your PC is equipped to play the multimedia games on the shelves today or under construction for the future, you'll move up to the next level of electronic entertainment, one that promises lots of sound and music, tons of spoken dialogue, vast numbers of animated images, and tremendous depth of play.

Getting there, though, isn't half the fun. You can spend valuable time and effort searching through mail-order listings, reading reviews, and matching hardware. Or you can circumvent such time wasters and buy a complete multimedia kit. Just add a PC and shake.

Supercomputer

The CompuAdd Multimedia Upgrade Kit is like that always-present phone booth in *Superman* comics and movies. Your PC steps into the booth an underdeveloped game machine and steps out as a multimedia supercomputer.

Opening the CompuAdd Multimedia Upgrade Kit is a bit like unwrapping presents on Christmas morning. Inside is a pile of cables and software,

a CD-ROM drive, a sound board, and even a set of speakers. Installing it all may look daunting at first, but it's really not all that difficult. Just follow the directions and in a matter of an hour or so your home computer will be compliant with MPC (multimedia personal computer) specifications, which state that any multimedia software with that same label will run on your computer (as will almost all DOS multimedia titles that come on compact disc).

Be warned, though. The CompuAdd Multimedia Upgrade Kit's documentation lists these minimum PC requirements as a 286 microprocessor-driven computer, 2 megabytes of memory, and a 30-megabyte hard-disk drive. Those specifications changed in late 1991 to a 386SX machine. Do yourself a favor: Unless you want your system slowed to a crawl and cramped for both memory and disk space, install the Kit only on a 386SX, 386, or 486 system with 4 or more megabytes of RAM and at least a 40-megabyte hard-disk drive.

Take the Guided Tour

Once you've got everything in place, stick the included compact disc in the CD-ROM drive and spin it up. This disc includes the multimedia system software — actually Microsoft Windows 3.0 with Multimedia Extensions 1.0 — as well as several other multimedia and Windows applications.

The main menu is your first stop. From there, you can delve into the HyperGuide, tour the System Shaker, dabble with Microsoft Write or Paintbrush, play with the CD Rack, or head into Windows.

HyperGuide is your escort to all the multimedia goodies you've crammed into your system, and will take you on a tour of Windows if you're unfamiliar with the interface. Spend some time looking through HyperGuide's various chapters. You don't have to be a rocket scientist to start in multimedia, but it doesn't hurt to know where you're going.

System Shaker lists what you have, where it's plugged in, and how it's working. A quick tour of the system and check of the system information give you the big picture. Also included on the system disc are Microsoft Write (a basic word processor) and Microsoft Paintbrush (an elementary art program).

The CompuAdd Multimedia Upgrade Kit also includes several other multimedia software treats such as Macromind Action (a multimedia presentation creator), Adobe Type Manager, and a selection of audio packages from Voyetra, including Sequencer Plus Junior, MusiClips, Win DAT, Command Line Players, and Multimedia Player.

Add a MIDI instrument and a microphone (an inexpensive one from Radio Shack will do) and your multimedia PC becomes a real-life digital recording studio. You can edit your sound creations thoroughly, then add them as backdrops to any animations you've created with software such as Macromind Action. With a microphone plugged into the back of the Kit's sound card, you can record voices or sound effects, then edit them at the wave-form level. (That's like looking at the actual sound under a microscope, then changing it.)

You can even play audio CDs on your multimedia computer with the help of CD Rack. Included in the MPC system software is this remote control that lets you shuffle tracks, play selected tracks, adjust the tone in two aspects, and, of course, crank up the volume. In fact, you can even listen to your favorite audio CDs while you play a game from the hard-disk drive. Pop in a CD, exit CD Rack and Windows, then boot up a game. The tunes will still jam along. An arcade game such as Rotox, Tetris, or Arkanoid is a lot more fun when you play along to the beat of a few Talking Heads tracks.

The Expanding World of Fun

The CompuAdd Multimedia Upgrade Kit expands your PC gaming possibilities to include the growing array of multimedia software, which features educational packages such as Grolier's Encyclopedia and Bureau Development's Multimedia World Fact Book, and early-childhood games such as Sierra's Mixed-Up Mother Goose and Broderbund's Living Books. You also can explore the world of Beethoven with Microsoft's Multimedia Beethoven: The Ninth Symphony, which combines text descriptions, stellar graphics, and, of course, the composer's timeless music.

You'll see plenty of MPC games this year, too, from such recognized names as Sierra, Broderbund, Access Software, and Interplay, to name just a few. Once enough home PCs get pumped up to MPC compliance, more and more game developers are certain to get behind the technology that'll prove to be the ultimate game platform.

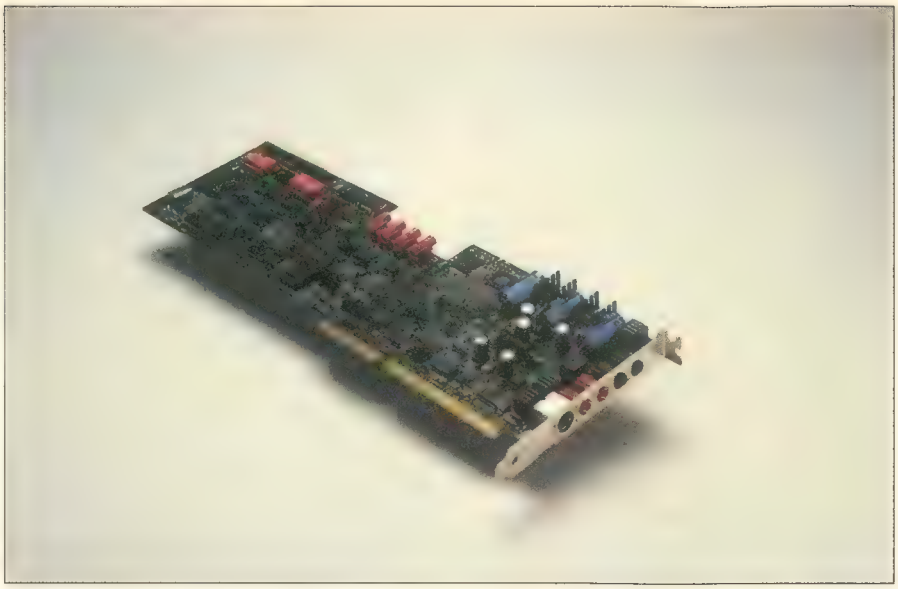
To whet your appetite, consider what a company such as Access Software will offer when it drops its MPC version of Links on the market later this year. Imagine digitized CD-style sound effects of the wind blowing, the club swinging, and the ball dropping into the cup. Imagine a gorgeous photographic fairway view even clearer than the one the game already provides on disk. Game companies are preparing to expand the world of fun, and you need to be ready.

The CompuAdd Multimedia Upgrade Kit, whether in its internal or external CD-ROM-drive form, is one way to keep your current PC, but turn it into a '90s game machine. It hands you all the hardware and software you need to make your own multimedia masterpieces or play any multimedia CD game. It's a gaming cornucopia you won't want to do without.

CompuAdd, 12303 Technology Boulevard, Austin, TX 78727, (512) 250-2530; 2MB IBM PC, Tandy, or compatible; 80386SX processor or faster; VGA; 30-megabyte (or larger) hard-disk drive; requires mouse; $1069 (kit with internal CD-ROM drive), $1295 (kit with external CD-ROM drive), $425 (kit without CD-ROM drive)

MEDIA VISION MULTIMEDIA PC UPGRADE KIT

By Tom Carlton



Get ready for the next generation of game technology with Media Vision's Multimedia PC Upgrade Kit.

With multimedia the hottest topic in PC entertainment circles since role-playing games went graphic, it's no wonder your head's swimming. *CD-ROM*, *8-bit audio*, *interactive fiction*, and *MPC* are just a few of the terms you're trying to digest.

The last is particularly troublesome, because it represents not only a software standard — Windows-based titles that integrate audio, video, computer graphics, and animation — but a series of hardware specifications, too. MPC, or *multimedia personal computer*, may be just the logo multimedia needs to push the game-playing envelope. By maintaining compatibility with existing DOS-based multimedia games and other titles, while extending stereo sound and animation to Windows, MPC has almost all of us drooling for that next step in electronic entertainment at the PC keyboard.

But what does it take to play MPC games? What does your PC need in extras to run an MPC title? That question is a lot easier to answer than you may think, especially when you enhance your PC with Media Vision's Multimedia PC Upgrade Kit, the first available hardware collection designed specifically to bring your system up to MPC specs.

The Kit and Caboodle

Media Vision's Multimedia PC Upgrade Kit bundles the company's top-of-the-line Pro AudioSpectrum stereo sound board with an internal Sony CDU-541 CD-ROM drive, then adds the final touch of Microsoft Windows 3.0 with Multimedia Extensions 1.0, the system software MPC protocol requires.

Pro AudioSpectrum doubles as a CD-ROM SCSI host adapter to support most SCSI peripherals. (This is unlike Sound Blaster Pro's proprietary controller that supports only a Panasonic CD-ROM drive.) Furthermore, this audio board is AdLib compatible and is particularly well connected, offering stereo-line input and output, microphone input, and a MIDI/joystick plug. For those of you thinking of creating multimedia presentations, not just playing interactive games, the Pro AudioSpectrum board can accurately record as well as reproduce stereo sounds ranging from 20Hz to 20KHz.

The Sony CDU-541 CD-ROM drive performs respectably. Its 150K-per-second continuous-transfer rate and 380-millisecond average access time eclipse current MPC requirements. Its 64K buffer permits smooth synchronization of animation and sound sequences, and its headphone jack and volume control are located conveniently up front, where they belong.

Also included, necessary in fact to MPC, is Microsoft Windows with Multimedia Extensions 1.0. Access to user control of these new extensions is available from a dozen icon-based desk accessories and "applets" (small applications). Add to that the instant gratification of two CD titles — Compton's Multimedia Encyclopedia and Jones in the Fast Lane — and you have an instant MPC addition to your personal computer. All you have to add yourself is stereo headphones or a pair of self-amplified speakers. Compton's contains not only the complete text of 32,000 articles, but includes 60 minutes of sound and music, 15,000 photos and illustrations, and the complete Webster's Intermediate Dictionary. This MPC title hands you a sophisticated information search-and-retrieval system for home, school, or office.

Less educational, but more entertaining, is Jones in the Fast Lane, a DOS-based multimedia CD. (An MPC system can play both MPC and DOS multimedia titles.) Jones on CD features a hand-painted board-game background and digitized human characters that speak. Up to four players compete to reach goals of wealth, education, career, and happiness. It's a multimedia version of the game *Life*. You'll invest in the stock market, perhaps get mugged, or win the lottery.

Three Steps, One Hour

And the PC you're building by buying the Upgrade Kit? Your machine probably already exceeds the low MPC requirement of a 386SX

microprocessor, 2 megabytes of RAM, 30-megabyte hard-disk drive, and VGA display. (If not, you should consider buying an MPC-ready system, such as the ones sold by CompuAdd, Tandy, and others.) As long as your PC meets or beats these specs, you're ready to shift into MPC gear with the Media Vision Multimedia PC Upgrade Kit.

The three-step installation of the Upgrade Kit takes less than an hour. In general, the sound board requires an empty 8- or 16-bit expansion slot, and the drive needs a vacant half-height bay inside the computer. With these two peripherals in place, you simply connect some cables, replace the cover, and power up. You're ready to load drivers and Windows' Multimedia Extensions.

But You May Need Help

If you've ever installed a floppy-disk drive or a bus mouse, you'll breeze through the Upgrade Kit's installation. But if you've never cracked a PC case and looked inside, you may want experienced help from a friend or your local computer-store technician. Either way, Media Vision's documentation describes each step clearly, and the company's technical-support staff can answer any lingering questions.

A few tips up front, though, may help. First, power down your system, pull the plug, open the case by removing the cover, and locate an available 8- or 16-bit expansion slot. Unscrew that slot's cover plate at the rear panel and insert the Pro AudioSpectrum sound board firmly. Next, secure the board with the bracket-retainer screw. You may need to move an existing board or two to make room for the CD-ROM-drive cable before moving on.

Once the board's in place, install the CD-ROM drive in an empty drive bay. Most AT-style desktop cases offer three floppy-drive bays, while many slim-line cases have only two. If you don't have a spare bay, you'll have to give up a floppy for the CD-ROM (ouch!). Slide the drive into the empty bay until it's flush with the other drives — don't remove the drive's plastic dust jacket, and be careful not to tear it as you push the drive into the bay.

You don't need to worry about rails or brackets as you do when you add a floppy drive — just fasten the drive directly to the frame of the bay with the four screws included. Plug a spare power connector into the drive, making sure the beveled edges align. What, no spare? Then head to your local computer store, where you can pick up a splitter for $2.

With the sound board and the CD-ROM drive secured, connect the 50-pin SCSI cable to the ports on each device. A final connection of the audio cable from the drive to the audio board completes the installation. Replace the case cover and power up. You're ready for software.

Installing the Software

A menu-driven installation program updates your system files and copies the drivers for the CD-ROM and sound board to your hard-disk drive. It even tests the Pro AudioSpectrum board to determine the proper DMA and IRQ values for configuration. If DMA or IRQ conflicts occur (it's not uncommon in many PC systems when you install an audio board of any kind), the installation guide offers clear directions to change the board's jumper settings.

With the hardware drivers in place, reboot the system and insert the compact disc containing Windows with Multimedia Extensions. You may get the error message *Incorrect DOS version*: The Microsoft CD-ROM driver hasn't been updated for DOS 5.0, so you'll need to insert the line device =*c:\dos\SETVER.EXE* into your CONFIG.SYS file.

What a pleasure to install Windows from a CD instead of swapping floppies for 20 minutes. The Windows setup program looks for previous versions of Windows to update with the new multimedia extensions, and if it doesn't find any, it installs a complete Windows 3.0 with Multimedia Extensions 1.0 in record time.

DAs for MPC

Six new desk accessories enhance the plain-vanilla Windows. Most give you access to the CD-ROM drive's and audio board's impressive capabilities. The push-button-metaphor Music Box lets you play audio compact discs in the Sony CRU-541, while Media Player lets you play sounds, animation, and MIDI-sequencer files by using the standard Media Control Interface (MCI).

In turn, MCI supports applications that use a variety of multimedia devices, such as videodisc players and CD-ROM drives. Using a microphone and the Sound Recorder desk accessory, you can record monaural audio.

Media Vision also provides ProMixer and Multimedia Mixer, two sound-board accessories. They offer measured volume control over playback or recording of standard audio devices, such as synthesized FM music, stereo recordings from CD or tape players, and stereo from the CD-ROM drive. ProMixer sports a timed-fade special-effects feature for fading in and out or panning from channel to channel. Once you create the desired mix, save the mixed sound file and all parameters for future use.

One advantage of Pro AudioSpectrum's software over Sound Blaster's is that it gives you the ability to record from several sources simultaneously. (Of course, much of this is more or less moot if you're sticking to game playing on your PC.)

Media Vision's Multimedia PC Upgrade Kit will make you think you won the lottery. Its $995 suggested list price sounds like a substantial gamble — after all, no one really knows if MPC will really take off — but with street prices closer to $700, you can take the risk with a clearer conscience. Even if MPC titles are slow in coming, as they probably will be in 1992, you have a quality audio card and a top-notch CD-ROM drive

that will run anything out there.

If you have CD envy, feel comfortable with the straightforward installation, and like the idea of dual DOS and Windows multimedia capability, you can't go wrong with this Upgrade Kit. You may never want to see another floppy again.

Media Vision, 47221 Fremont Boulevard, Fremont, CA 94538, (800) 348-7116; 2MB IBM PC, Tandy, or compatible; 386SX or faster; DOS 3.1 or later; VGA; 30-megabyte or larger hard-disk drive; one 8-bit expansion slot; one 5.25-inch drive bay; requires mouse; $995

WHERE IN THE WORLD IS CARMEN SANDIEGO? DELUXE CD-ROM

By Tom Carlton

Simply spectacular. That's the indictment on the brand-new, yet old, incarnation of one of the software world's most popular crime- and clue-filled game for kids.

Although it's something of a return to the original episode, this multimedia version of Where in the World Is Carmen Sandiego? hits the PC on compact disc instead of floppy. The transition works, as much because it retains the series' excellent sense of mystery and intrigue as because of the stunning photographs, stereo scores, and animated characters this CD version provides.

A family game that takes you from the streets of San Francisco's Chinatown to ancient cities in Mali, Where in the World lets you experience the world's sights and sounds in a form so packed with audio and video that you'll be hard pressed to head back to the PC without a CD in hand.

The Familiar Gumshoe

Your assignment is to track down vile villains who plunder the world. The Chief, a white-haired stiff-upper-lipped character, sends you on your way after briefing you on the latest crime and its location: A rare Islamic manuscript has been stolen in Bamako.

There's no sensory deprivation in this PC game. From start to finish, you're bombarded with video and auditory information — some background, some vital to the case — as you travel the globe in hot pursuit of these cultural criminals. From folk music and dazzling maps to a cast of animated characters with unforgettable personalities, Where in the World is a delightful turn through multimedia.

But it's still the familiar tale of clues and chase. You jet from place to place, hot after one of 20 possible suspects whose names add to the game's frivolity — Irma Dillow, Sandy Dunes, and Sam O'Nella are but three of the gang. When you arrive at a location, a notepad appears to offer information and to help you uncover leads. Land in Mali, for example, and you'll read a bit about the West African nation's past, then pick from a quartet of actions to start collecting evidence.

Click on the notepad's dossiers button and you get a directory of criminals, complete with descriptions and illustrations of each felon. As you uncover clues and assemble them in the evidence database — hair color here, distinguishing features there — you can call on the Warrant Robot, who matches the facts to the profiles. Identify the crook, and you'll get an arrest warrant. Now all you have to do is catch the blackguard.

CD-ROM photos, stereo sound, and beefed-up animation bring Carmen Sandiego to life.

A Little Help from Your Friends

From there, it's a fast-paced race from city to city as you try to nab the villain. More clues — or if you need assistance call the ACME Crime Net — help you narrow the locations in which the suspect may be hiding. Dial up Heck Ryder, and his animated face pops up on screen as he hands you even more helpful hints.

Blondie — a sassy travel agent — offers her assistance as well as a map of the world that pinpoints your location and the names of several capitals around the world. A clue gleaned from a photograph sends you first to Phnom Penh, next to Bangkok, then on to Mongolia. The collar is suitably entertaining, with a blue-suited policeman arresting the suspect, and a quick trial in Singapore. After a

promotion to investigator, you're ready for the next case.

But Why CD?

Where in the World Is Carmen Sandiego? now comes in three flavors: the original floppy version (1 megabyte), the Deluxe floppy game (6 megabytes), and the CD-ROM edition (*120* megabytes of material). So why CD?

Simply put, the compact-disc version of this classic is just a heck of a lot more of a darn good thing. The rich visual and auditory details found in the CD-ROM variation make it more challenging, more educational, and more entertaining.

Numbers tell the tale to some degree. While the original Where in the World offers 30 countries and the Deluxe edition 45, the CD packs in 60. It also includes 130 digitized photographs from these countries, so that it provides children with informative and interesting images of the world. Although there's no competition between these pics and ones in a glossy coffee-table book, these images connect you with important cultural, historical, and geographical features of some five-dozen countries.

You'll really notice the CD difference when you listen to the 150 authentic, digitized traditional- and folk-music selections from Smithsonian/Folkways Recordings. These recordings complement the photographs and add depth to the visuals. Neither the original nor the Deluxe floppy version offers such a musical encyclopedia.

The CD more than doubles the number of talking characters first heard in the Deluxe floppy version. The Chief and ten other characters sound off with biting humor and sassy conversation, adding personality to the game in spots where before was only flat dialogue you read yourself.

Add to all this the nearly 1000 brand-new clues stuffed into the CD — 500 of which actually challenge your knowledge of foreign languages — and you have an even more intense investigation ahead of you.

Athough the Deluxe floppy edition features 60 animations, the CD-ROM disk contains hundreds. They inject vitality and impart a new quality of PC entertainment. That sassy travel agent and those vile villains who leap across your screen will keep the whole family laughing.

A First-Class Flight

Finding a fault with Where in the World Is Carmen Sandiego? is tough. If one does exist, it's probably in that this software takes over your PC. There's no provision for a quick out to DOS — except leaving the game with a save feature. Neither will it run under Windows. (Where in the World is a DOS multimedia package, not an MPC title.)

The video telephone, notepad, and picture-window metaphors make the easy-to-use interface interesting. Although no pause button is provided, a few clicks of the keyboard pause key will put everything on hold, including the music and occasional chatter of characters.

Adventure Awaits

This brilliant combination of entertainment and education will keep the whole family at the screen for hours.

Combine the basics with the new multimedia extras — spectacular recordings from Smithsonian/Folkways and maps from the National Geographic Society — and you've got a first-class armchair flight into a wonderful world of physical and cultural geography. ❑

Broderbund Software, Inc., 500 Redwood Boulevard, Novato, CA 94948-6162, (800) 521-6263; 640K IBM PC, Tandy, or compatible (10MHz or faster); DOS 3.0 or later; supports AdLib, Pro AudioSpectrum, PS/1 Audio Option, Roland MT-32/LAPC-1, Sound Blaster, Sound Blaster Pro, Sound Source sound boards, Tandy sound; requires hard-disk drive, CD-ROM drive; $89.95

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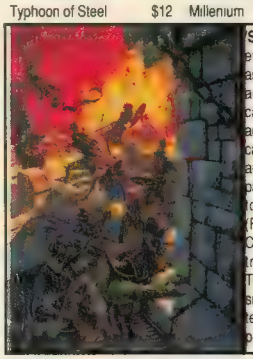
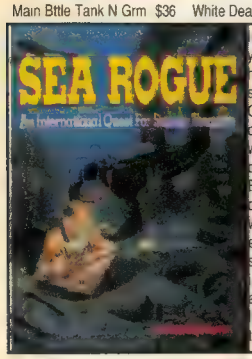


'SIEGE' is a medieval style castle assault game. You are given four castles to attack and defend in a one castle scenario or an extended campaign. Includes historical troops (French, English, Celtic), mythical troops (Elves, Trolls, Giants), siege towers, battering rams, catapults, and oil. **$38**



In **'SEA ROGUE'** you'll search for history's greatest sunken treasures. Command a crew of five as an underwater archaeologist or a fortune hunter. By negotiating ocean currents, outwitting claim jumpers, hijackers, and surviving man-eating sharks you'll advance to wrecks like the Titanic or the Bismarck. **$39**

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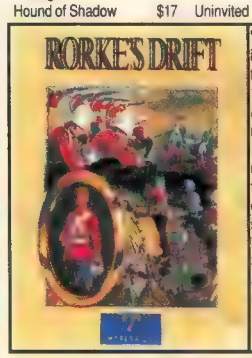

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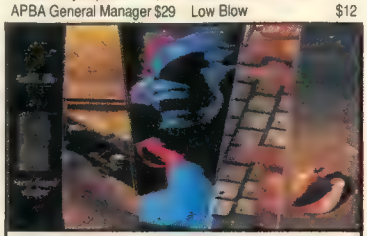

'ADLIB GOLD 1000' from **ADLIB INC** is a high quality **stereo** sound card. It complies with Multimedia PC sound adapter standards. Features: 16 bit stereo DAC providing 96db of dynamic range, programmable audio mixer, 20 stereo channels, MIDI input and output, sampling rates of up to 44.1 KHz, stereo input jack, and game port. **$179**

The **'ADLIB'** music synthesizer card by **ADLIB INC** adds sound capability to hundreds of existing PC games. Using its 11 different FM synthesized voices, it can reproduce any sound. The standard audio jack allows you to plug in any pair of headphones, boombox, or bookshelf speaker. **$64**

'LOST ADMIRAL' is a turn based naval strategy game. Features 9 scenarios, a random map scenario, 15 campaign games, flagships with special abilities, very strong artificial intelligence, in depth officers ranking system, a career history that accumulates as you play, and a 2 player option. **$34**

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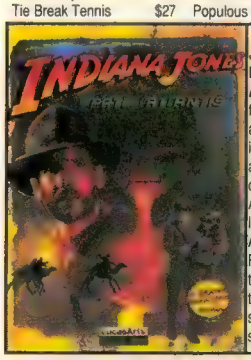
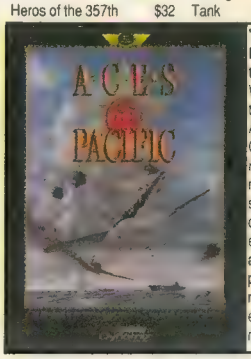


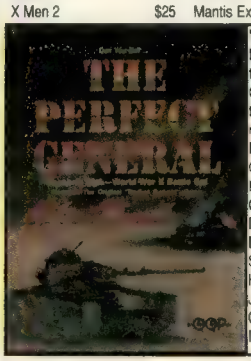
'INDIANA JONES: THE FATE OF ATLANTIS' is the fourth Indy Jones adventure. Again, it is Indy vs Nazis as he tries to uncover the secrets of Atlantis. Visit Iceland, Monte Carlo, Africa, & Crete. Features 200 locations, great animation, interactive sound, and mouse support. **$38**

'GLOBAL CONQUEST' is the first strategy game that allows up to 4 players to compete while exploring a **random** world via modem, link, or LAN. You face up to four cutthroat computer adversaries, each with a distinct personality. Features 3 world view sizes and control of land, sea & air forces. **$39**



'ACES OF THE PACIFIC' brings all the action of the War in the Pacific to your PC. Fly the A6M Zero, F4U Corsair, F6F Hellcat, and many more. Includes single mission or campaign play for either side, legendary aces to fight, a powerful mission recorder, and an extensive 240 page manual. **$39**

'MARTIAN MEMORANDUM' is an exhilarating, fast paced interactive mystery. You are Tex Murphy, a hard boiled gumshoe, who faces murder, deception, and prophecy while searching for the martian memorandum. Features fully animated talking characters and on demand help. **$37**



'WORLD WAR II BATTLE SET' for the Perfect General includes the folowing scenarios: Pegasus Bridge, Sicily, Guadalcanal, Kasserine Pass, Gafsa, Anzio, Utah Beach, Omaha Beach, Okinawa, Saipan, Gazala-Bir Hacheim, Iwo Jima, Arnheim, Oahu, and Kharkov. **$23**

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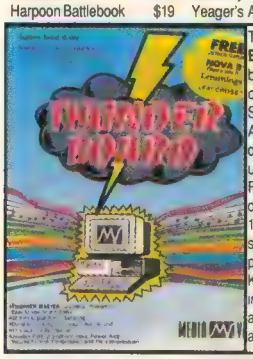
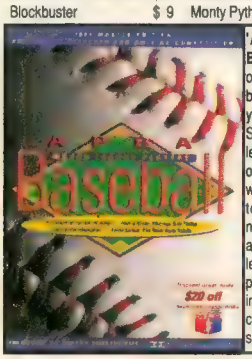


The **'THUNDER BOARD'** is a sound board that is 100% compatible with Soundblaster and Adlib. It reproduces digitized sounds using an 8 bit DAC. Features include dynamic filtering, 11 Voice FM music synthesizer, sampling rate up to 22 KHz, microphone input, joystick port, and a 2 watt power amplifier. **$84**



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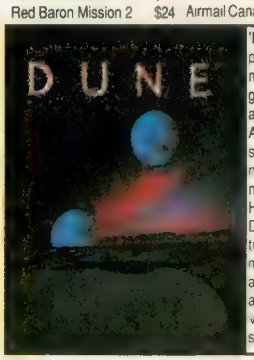

'DUNE' follows the plot of the book and movie in a strategy game setting. You are the soldier Paul Atreides, who must seize this opportunity to drive your nemesis, Baron Harkonnen, from Dune. You train troops for battle, mine spice and acquire telepathic abilities. Includes VGA & sound board support **$29**

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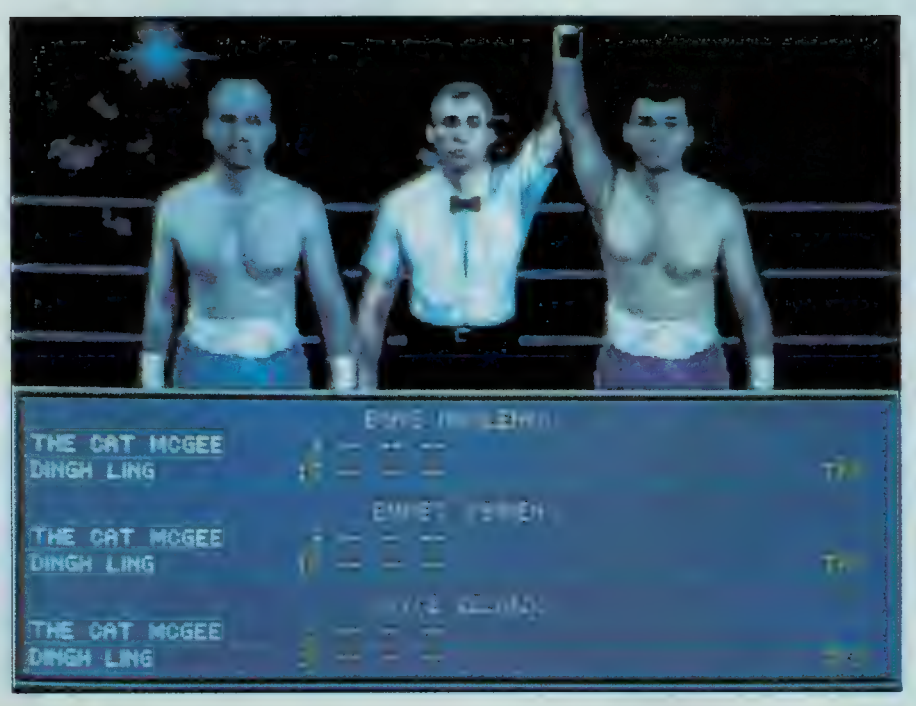
ABC'S WIDE WORLD OF SPORTS: BOXING

By Ed Ferrell



Wide World of Sports: Boxing doesn't feature the sweaty reality of the sport.

Boxing's taken more than a few punches below the belt. When former title holders head for the courtroom more often than they hit the ring, or when promoters set champions against no-names, boxing gets another black eye.

You'd expect ABC's Wide World of Sports: Boxing to bring you the glitzy thrill that accompanies boxing your way to a nationally televised championship. No such luck, though — the game's designers concentrated on the sad and sleazy aspects of the sport — parts most of us would prefer to sweep from real boxing altogether. Self-serving managers, uncaring trainers, faulty equipment purveyors, and every other kind of weasel imaginable is here, ready to prey on your fighter as you guide his career toward a title shot.

Although ABC's Wide World of Sports: Boxing tosses everything from body blows to spandex-clad women into the ring, the machinations outside the ring play a bigger role than the action on the canvas.

Own a Piece of the Rocky

Have you heard of someone owning a piece of a boxer? In this game, you own all the pieces, literally. You create your boxer in mad-doctor fashion by selecting from several different head profiles and choosing hair and skin color. Deciding your boxer's height, weight, and reach determines whether your man will be a brawler or a dancer, but none of the cosmetic choices gives any advantage in the ring.

A more-important test of your boxing intellect is how well you allocate ability points among ten basic conditioning categories. Stamina, power, hand speed, killer instinct, and others compete for your limited ability points. The balance you strike is the result of tough trade-offs between, for example, overall body conditioning and footwork. When you divide offensive punching strength among jabs, hooks, and uppercuts, you shape your man's pugilistic style.

Once created, your fighter begins as an unproven greenhorn. To break out of the basement, you need a manager to book fights and a trainer to help hone your skills. Without a winning record, you take the small-purse fights your manager arranges, and with no money to buy equipment, your trainer's advice is all you can afford.

You'll go to the gym to prepare for your first fight. The trainer sets up exhibition matches, and you'll learn quickly or be punished. Because all your training takes place in the ring, you'll undoubtedly end up on your back, but these exhibitions don't affect your career record. Unfortunately, the gym's a missed opportunity, because no real training takes place here. Working out with a jump rope or speed bag — anything to get familiar with the joystick controls — would have been a nice touch.

Ready or not, it's fight time. The ABC *Wide World of Sports* booth comes to life as Dan Dierdorf announces the tale of the tape. The fighters' records are displayed, and round one begins, leaving you to wonder what Dierdorf has to do with boxing.

An overhead view of the ring appears as you move your fighter closer to his opponent. In a close-up side view, you crouch, advance, and throw punches at your opponent. A powerful brawler

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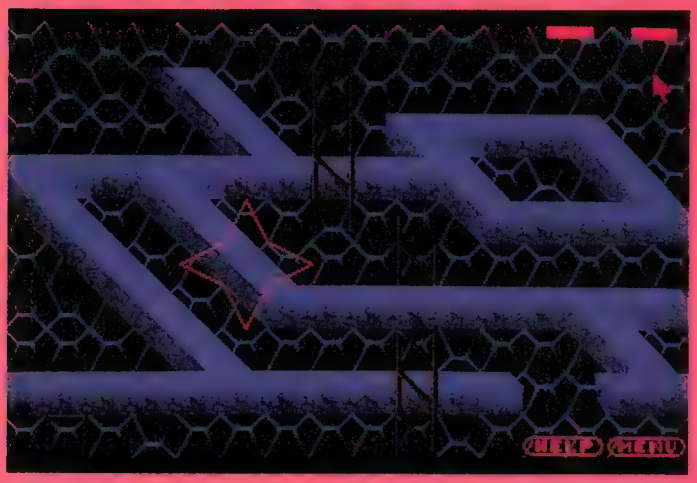

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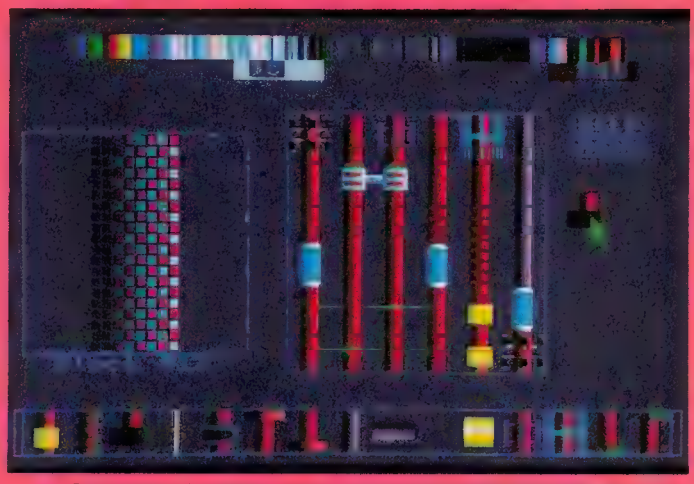

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may call for a dancing, jabbing retreat. Each boxer's stamina and head and body damage are monitored on bar graphs below the action. When your opponent is hurt, let the leather fly and go in for the finish.

How realistically does ABC's Wide World of Sports: Boxing simulate the ring action? Not very. Forget the keyboard — you need a joystick to control your boxer's jabs, crosses, and uppercuts successfully and to make him weave in and out of range. Well-landed punches cause more damage than glancing blows. The game scores head and body damage consistently, but in the end the physicality of boxing is reduced necessarily to flying fingers.

The generally accepted rules of boxing apply in this simulated ring, with the notable omission of a doctor to stop the fight. Each three-minute round is scored by an assortment of judges who use the ten-point must system. (The winner must receive ten points.) Most judges tend to favor the hometown fighter. During the fight, cuts appear as red splotches on a boxer's face, and — not to neglect the sexist side of boxing — a winsome model struts her stuff around the ring between rounds.

Seedy and Squalid

Once you've won a couple of purses, you can buy out the manager holding your contract and shop for a better one from among the other characters in the game. You may find, though, that these characters are drawn too broadly for modern sensitivities.

Tony Cappuccino, a traditional Italian with a known gambling habit, offers a free spaghetti dinner if you sign with him. The myopic Chinese kung-fu master "Grasshopper" Grant promises to improve hand speed, and Cuts Corrigan's motto is "with Corrigan in your corner, your future's all sewed up!" These are obviously silly caricatures, crassly created to reflect the worst side of professional boxing. With his mile-high electric hairdo, you may also recognize manager Don McQueen as a too-cute replica of the high-profile, real-life Don King.

Stamina and body-conditioning ratings improve while your fighter rests, so while waiting for your next bout, keep busy by reading the on-screen boxing magazine. Here you'll read results of current fights — including those of some future opponents — and find upcoming bouts listed.

You may buy equipment and services from companies listed in the classified ads, but the ads change every month, so those barbells you need may not be available by the time you earn enough money to get them. Take ballet lessons to improve your footwork or buy a massage after a tough match. Even here the game designers take the low road by including ads for sides of beef and Port-a-Paramedics for boxers known to bleed.

This Data East game makes an offer that too few pros see fit to take: You can retire. If you've got some class, let your boxer retire when he's on top and watch the rest try to beat your records.

Data East filled ABC's Wide World of Sports: Boxing with enough silly trappings to make it more like Leisure Suit Larry than *Wide World of Sports*. The ring action has a fun, arcade style to it, but puts far too much emphasis on interacting with those shady characters who sit, vulture-like, at ringside.

Regardless of the antics surrounding real professional boxing, the sport has enjoyed a long history of popularity. From leather-fisted Mesopotamians and the Greek gladiators to Ali, Foreman, and the modern pay-per-view pugilists, the sweet science of boxing still attracts a crowd.

It remains to be seen how many will be attracted to a game whose main action is far from the sweaty reality of the sport.

Data East, 1850 Little Orchard Street, San Jose, CA 95125, (408) 286-7074 x297/298; 640K IBM PC, Tandy, or compatible; VGA; supports AdLib, Sound Blaster sound boards; hard-disk drive recommended; joystick recommended; $49.95

SPEEDBALL II: BRUTAL DELUXE

By Cameron Crotty

A lot of tie jockeys think an afternoon of PC sports means a round of golf. That translates to "Hey, chum, let's go chase a little white ball with some lopsided sticks and a brace of gin-and-tonics, what?" They call that a sport?

Even if you slog out of the silicon sand trap, most other computer sports games aren't much better. Boxing? Take off the gloves, get rid of the referee, and we'll talk. Football? Gimme shelter. There are no steel spikes, no crack-back blocks, and the ball is cushy leather. And if I see Wayne Gretzky's lily-white face on one more pansy hockey game, I'm going to toss my cookies in SVGA technicolor.

There's only one game for a man, a real man — Speedball. When the first version came out, I almost totaled the house. I tore apart four joysticks in three days. My wife called the cops to calm me down, but after I hip-checked the first one and snapped his femur like a fresh-cut sapling, they left. Next thing I know, I'm staring at squads of state troopers in full riot gear. I waded in, wielding the 20-pound steel ball I'd specially ordered to celebrate my first division crown, but they surrounded me with their Plexiglass shields and beat me to a bloody pulp with riot sticks. What an afternoon!

Now Speedball II has come in the mail. My old spiked gloves were right where I left 'em, and I'd disguised the steel ball as a lawn ornament.

I'm back.

We Don't Need No Stinkin' Rules

Those of you unfamiliar with the greatest advance in spectator sports since spikes showed up on football helmets may want a taste of the game. Fair enough.

You play Speedball in a large, steel-lined arena affectionately called The Pit. The object's simple — throw, push, bounce, or roll a 20-pound steel ball into the other team's goal. It gets better. There aren't any rules. There are only two ways to stop play during the game's two 90-second periods — shove the ball into the goal or bleed from your ears.

Each 12-player team sports three forwards, three mids, three defensive players, and three subs. As manager, you have a small pile of credits you can use to buy better equipment for your bunch. Bit-map shades, for instance, increase a player's aggression, power boots increase speed, and a power glove increases power. You can buy equipment for individuals or for your entire team. There are limits, though. You can't favor one individual or group at the expense of the rest of the team. After a certain point, you won't be able to buy more for the stars until you raise the abilities of the rest of the team.

If you can raise the cash, you can sign free agents, players with more on the ball than the bozos you have to work with. But like all free agents, they cost an arm and a leg. Whether you tweak your own team or buy a hired gun is one of the most important calls you'll make as coach.

With live-action graphics, Speedball II's interface is worth the price of admission.

Rumble in the Jungle

Speedball II's live-action graphics images are smooth, fast, and colorful, even on a 286 system. The game's interface alone is worth the price of admission. Controlling nine players locked in hand-to-hand combat is hairy in the best of circumstances, but the Speedball II design team made it easy.

You get an overhead view of The Pit and you control one player at a time. (That player will have a flashing marker over his or her head.) By the way, anyone who's snickering at the thought of women playing Speedball should step right up and say it to Celine's face.

As if scoring points isn't enough, Speedball also sets you thinking about picking up the credits scattered around the arena. If you don't, you won't be able to pump up your team for the next match. Nothing's worse than scraping through a game only to realize that you're playing the league champions next week with nothing in the bank. The Pit has a few other surprises, too, such as the electrobounce units that charge the ball and the pick-up medallions that freeze the other team for six seconds, then transport the ball instantly to your center forward.

Speedball II's no picnic, not at the start. The game's designer must have a criminal sense of humor — you manage the worst no-talent bunch of losers to come down the pike since the league began. You get some credits to boost their abilities, but it's never enough.

If you've never bounced around The Pit before, practice before you take on any competition. Once you've got your moves down, run a couple of knockout rounds to get used to having another team on the floor. You'll get your face planted on the steel early and often, but keep at it. If you're feeling cocky, go for the gold in a double-elimination round-robin tournament with the entire league. When you're through with the kid stuff, select *League Play* and manage your team through a 14-game Division 2 season. If you're good enough, you'll get promoted to Division 1 for another 14 games.

Speedball II has scads of built-in endurance. Even if you do manage to take out Super Nashwan, the Speedball all-stars, there's a two-player option for brawling with your closest friends.

Crunch

I've managed two days of uninterrupted Speedball II play, but things have gotten out of hand. I can hear someone yelling on a bullhorn even though the couch is barricading the door, and tear-gas cylinders have started to thump and hiss into the living room. Sigh. Nobody wants to have fun anymore.

For some hard-hitting action, pick up a copy of Speedball II and aim for the head — from behind.

Konami, 900 Deerfield Parkway, Buffalo Grove, IL 60089-4510, (708) 215-5111; 640K IBM PC, Tandy, or compatible; EGA, VGA, Tandy 16-color; supports AdLib, Roland sound boards, Tandy sound; requires joystick; off-disk copy protection; $39.95

TEAM SUZUKI

By J. Blake Lambert

Lean into the turn at 80 mph and just try to keep your face from scraping the pavement. Just try. In Team Suzuki, a motorcycle racing game from Konami, there's no helmet required, no license either. Grab your motion-sickness pills, put on your make-believe leather-padded suit, and get ready to rock — Team Suzuki is a blazingly fast race game that's all reflex.

Team Suzuki emphasizes speed and 3D motion over photographic realism, so although it looks cartoonish, it always feels exhilarating. It's fast, fun, and easy to enjoy, but it's also challenging and has plenty of variety.

Getting Team Suzuki up and running is easy. The configuration program lets you select the appropriate video mode and sound board, and even lets you adjust the joystick and mouse sensitivity. (For some reason, the keyboard doesn't move the on-screen menu pointer to the right, so you'll need a joystick or mouse to get going. The keyboard works once the game starts, though.)

You can hop on any of three different motorcycles — an easy-to-handle lightweight 125cc bike with automatic shifting, a midrange 250cc manual model, or a heavyweight 500cc manual-shift bike. The larger bikes require more skill, but provide more-rapid acceleration. Accelerating, braking, and shifting are smooth and consistent.

Team Suzuki offers four ways to burn rubber. In training mode you ride solo against the clock, and you don't have to worry about hurting either the bike or yourself. It's a great way to get a feel for the bike and track without crash (and game-restart) anxieties. Practice mode still has you riding alone, but with damage accounted for. The clock's off, too.

If you just want to jump on a bike and race, head to single-race mode. You qualify for position, then race on one of the 32 tracks against seven excellent riders. You get to choose the track and the number of laps for the race. The final stage, and most complete, is season mode, in which you race at all 16 of the tracks in one of two track groups. The grand-prix scoring depends on how you finish each race. You can save a season in progress and return to it later, and if you get saddle sores you can pause the game anytime.

Team Suzuki tracks your mistakes. You can survive bumps and riding off the track occasionally, but the damage indicator displays at the top of the screen each time you do so. Once you reach 100 percent damage, it's all over for both you and the bike.

You can improve the game's speed and animation by turning off the view of your hands on the handlebars, the motorcycle's dashboard (which shows current gear, speed, and RPMs), or the view of the other bikers. Function keys select the game's camera angle, from the rider's perspective to a roving-camera angle to a helicopter shot. You can zoom in and out of the roving- and helicopter-camera views whenever you want.

Team Suzuki could stand some improvements. Why restrict training and practice modes to just the test track? You should be able to use any of the 32 tracks in the game. More difficult to implement would be a head-to-head, two-player option, so that you could race against a friend, or include him or her in a race against the experts. Adjustable skill levels for the other drivers would keep Team Suzuki's races competitive for beginners.

A track map would also come in handy — maybe one in the corner of the screen that marks your position. And how about a two-camera option that lets you use a split screen or a small window to keep the rear view constantly in sight as you look ahead? These options would make Team Suzuki even more enjoyable for players at all skill levels.

Even with this wish list in mind, Team Suzuki is a great game for those times when you don't want to ponder what dungeon door to open or which million-dollar jet-aircraft switch to flip. Fire it up and let it fly! Just be careful not to lose your lunch as you zip around the turns.

Team Suzuki brings speed and 3D motion to your PC screen.

Konami, 900 Deerfield Parkway, Buffalo Grove, IL 60089, (708) 215-5111; 512K IBM PC, Tandy, or compatible (10MHz or faster); DOS 2.1 or later; EGA, VGA, MCGA; supports AdLib, Roland, Sound Blaster sound boards; off-disk copy protection; $39.95

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SHUTTLE: THE SPACE FLIGHT SIMULATOR

By J. Blake Lambert

If NASA ran the real space-shuttle program the way this game does, we'd all be in trouble. Although Shuttle: The Space Flight Simulator is designed for the dedicated space-shuttle fan who wants to learn more about the spacecraft and the tasks required to complete a mission, it has a lot of room for improvement.

The programmers of Shuttle: The Space Flight Simulator need to make the software more accessible to those gamers who are electronic-flight beginners. And, perhaps more important, the designers need to make the game more fun.

One of the program's major failings is that the documentation is neither comprehensive nor illuminating. Game play comes down to trial and error and some substantial fumbling through the 144-page *Instruction Manual*, the 26-page *Mission Guide*, and the fold-out poster of the control panels.

How Do I Land This Thing?

You'll discover that this play-by-guesswork approach is especially true in your first mission. When you try to land you don't get any help from Mission Control. (Maybe everybody's taking a coffee break in Houston.)

Although the pile of paper offers some interesting technical information about the various parts of the shuttle, the manuals offer too much reference material and not enough coaching. And at this point, a little coaching is really what you need.

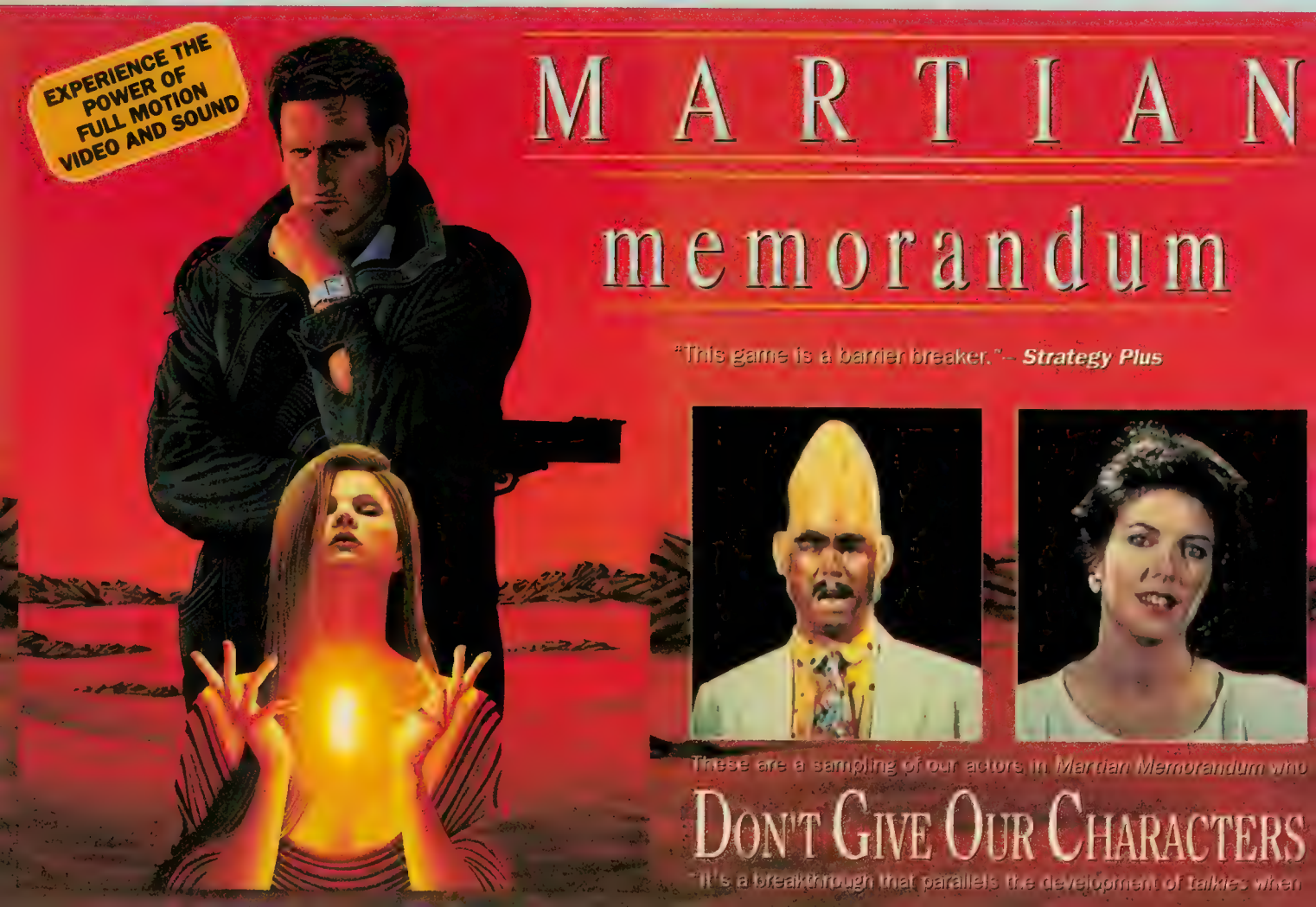
It's true that the shuttle is a complex piece of hardware, but that's no solace when you're staring out the window looking for a safe place to land. You're on your own, without even a reminder to arm and drop the landing gear.

You can't even rely on the manual for some guidance. Whether you need to look up basic landing procedures or determine the display you should use to follow the proper flight path, sections of the documentation give insufficient or conflicting information.

The Not-So-Right Stuff

Although Shuttle: The Space Flight Simulator offers selective help — you can activate on-line help to automatically locate the switches and knobs you need in lift-off — there's simply no good way to get some to-the-point advice on what you may be doing wrong at any given moment of flight.

You can glean other, more peripheral data from the *Info* section of the Shuttle's point-and-click menu. Here you'll find interesting but brief descriptions of some of the shuttle's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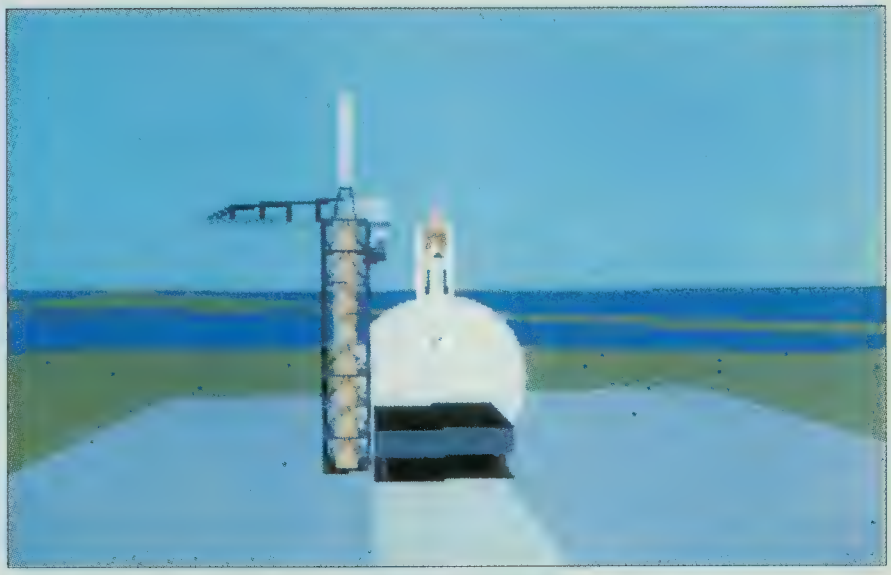
major components. Another section, *Sites*, displays the two launch (Kennedy and Vandenberg) and landing sites (Kennedy and Edwards).

Give It Time

Obscure though it is, Shuttle is also a feature-rich simulation that gives you opportunities to customize it. Two time-related features, for instance, let you skip boring waits without missing significant moments. *Time Advance* moves you forward by a specified amount of time and lets you set the number of times the screen updates. You can, for example, advance two hours quickly, but have the program show you only one frame for each ten minutes of action. To take any necessary action in the meantime, simply set the appropriate help level and either the computer or you can intervene.

The second time feature, *Time Skipping*, sends you to a specific moment in the mission, say, *T+ 00:50:00*. You don't really miss anything, though, because Shuttle uses time advance and performs any action required in the mission.



Shuttle: The Space Flight Simulator is an obscure but feature-rich simulation.

You can even start a mission from any of several places — at roll-out to the pad, at the launch, on making orbit, or at the beginning of the landing phase. But you can't pick the missions themselves — Shuttle offers several, from satellite recovery to a secret military objective. The program forces you to take on the missions in order, completing one before you're

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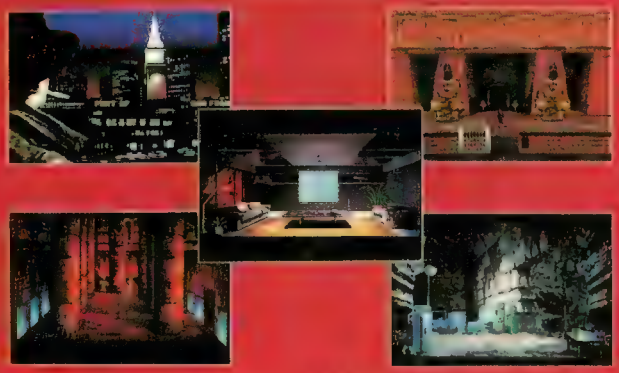

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allowed to tackle the next. Although that may make some sense in real life — NASA wouldn't trust a shuttle to a pilot who hasn't mastered landing — it makes no sense here. Shuttle should let you try any mission at any time, regardless of your experience.

Shuttle doesn't dazzle you with realistic photographic-quality stills — its best images are 16-color VGA. Only when things move does Shuttle strut its stuff. Three-dimensional views are blocky at best, even in the most detailed modes. A roving camera that zips around nicely lets you look at the shuttle and other objects from any angle.

Shuttle performs well on a 40MHz 386, but even on a 20MHz machine the program is reasonably quick. Of course, Shuttle's animation is noticeably smoother at faster speeds. It also offers several options that let you eliminate details such as the continents and the stars so that you can speed up the display. You can even pick from high-, medium-, or low-complexity levels for the map and the shapes.

Is It for You?

This game is frustrating and hard to pick up, but oddly enough, if you stick with it, there's much to keep you occupied. The mission list is impressive and includes such exotic assignments as launching the Hubble telescope and putting space-station modules into orbit. You even can try your hand at running the shuttle's robot arm.

With all that work to do, you might be able to keep busy and entertained — if you've got the patience to master the mechanics and get your space legs. Most of us, though, will watch shuttle lift-offs on CNN, not the PC.

Virgin Games, 18061 Fitch Avenue, Irvine, CA 92714, (714) 833-8710; 640K IBM PC, Tandy, or compatible (12MHz or faster recommended); CGA, EGA, VGA, Tandy 16-color; supports AdLib, Roland MT-32/LAPC-1 sound boards; $59.95

SPACEWRECKED

By Peter Scisco

Get lost — in space. Drift for years in a cryogenic sleep with little hope of rescue. Wake to a collapsing spaceship, hostile aliens, and the screaming silence of a ghost fleet floating outside your portals.

Looks like you'll have to wait on that cup of coffee.

Konami's Spacewrecked (subtitled *14 Billion Light Years from Earth*, a distance that makes even Texas highways seem puny) starts here and gets worse. The clock is ticking, the rads are climbing, the life-support systems are failing, and your only chance of rescue is to restore the ghost fleet to working order. That's a pretty tall order, considering that you must repair all 20 ships in the fleet, one at a time.

Spacewrecked employs the basic elements of a role-playing adventure game — picking up objects, maintaining an inventory, using objects, solving puzzles — but adds a maze (the ships), then turns up the heat with a game-clock countdown.

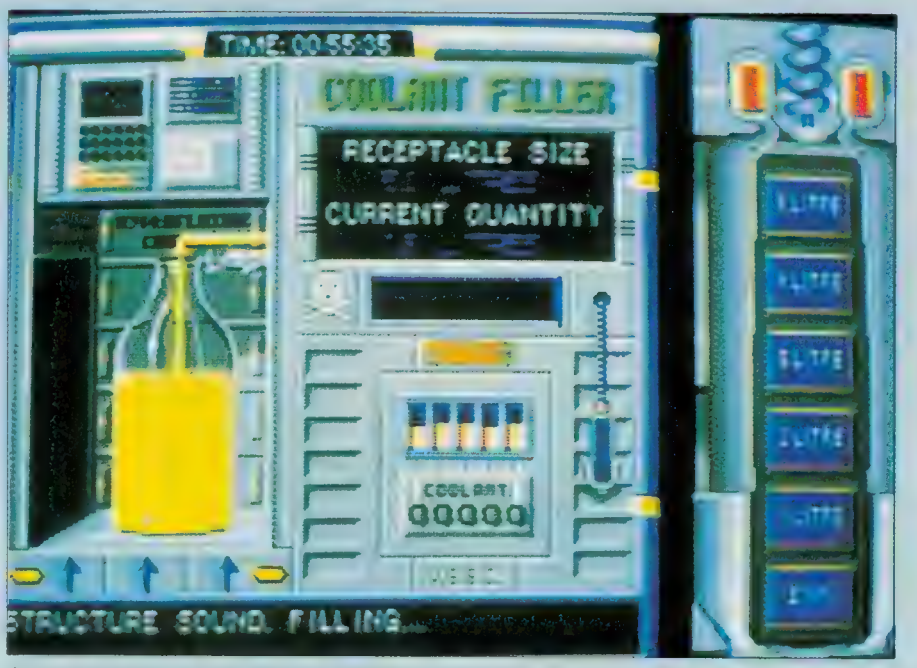
Although it's certainly hard to leave Spacewrecked — you literally have to reboot the computer to quit — it's an addictive encounter with aliens.

Work Wanted: Spaceship Repair

Ship repair is the essence of Spacewrecked, and actually demands three separate steps: You must find a spare Energy Flux Decoupler and install it in the power room, locate the Inhibit Lock and return it to the bridge, and bring all the ship's systems to at least 80 percent.

As the game opens, you're in the hangar of the first ship with your view screened to straight ahead. You can turn in 90-degree increments, and move one step forward, back, left, or right (provided the way is clear). Move fast — time is critical. Don't expect to live long in the first few games, but remember what you've learned about the ship's layout, so that you can move faster next time.

Your screen's viewing area also shows the name of the room you're in, as well as what you hold in your hands. The latter's important, as you can use only an item that you hold, and you can hold only two things at a time. Also on display is a graphics image of your physical condition, which changes to reflect your current health as you get injured. When noth-



Spacewrecked, a role-playing adventure game, is an addictive encounter with aliens.

ing's left but a skull, start thinking about the next game. Environmental-status graphs to the right indicate the ability of the ship to support life. They have bars that run from green to yellow to red.

Not everything's so clearly laid out in Spacewrecked. If you're an experienced adventure gamer, you may have some trouble getting used to the way the game makes you pick up objects. Unlike most other PC role-playing adventures, which typically let you pick up something by selecting an object, then dragging it to your inventory, Spacewrecked demands that you choose the inventory icon first. Only then do you see the inventory screen, which displays not just the items on the floor, but assembles everything else, too — such as objects in your pack and in your hand, objects you're wearing, objects on your belt, even objects carried by the robots you discover.

As you search through the ship, you'll stumble on various robots you can enlist as allies in the struggle to relaunch the ghost fleet. You can program each robot to carry out a specific function, such as carrying objects from room to room, attacking aliens, repairing a ship's systems, and searching for life forms. Once you learn how to program them, which isn't easy, they can save you valuable time.

Rule #1 — Kill

Rule number one in Spacewrecked is kill every life form you meet. It may not be the politically correct thing to do, but it'll keep you alive. Chances are, every creature you meet, alien or human, is mad about being marooned with the ghost fleet. They're looking for someone to blame, and that someone is you.

Another proven strategy is to concentrate on bringing the ship's power on line, as you'll need it to complete other operations critical to the ship's repair. If you pick this path to victory, move through the ship quickly, look for the Energy Flux Decoupler, and search out the power room. Once there, it's a simple matter to restore the power generator.

Make sure you remember the location of the ship's Terminal Room. From here you can access the computer, view a map of the places you've been, and get an update on the ship's status. It's a good idea to keep a copy of the map on your desk, too, as each room is numbered and you'll need these numbers if you want to program a robot's movements.

One last pointer: You can fire a weapon only when it's in your right hand (no lefties admitted to the Space Academy). Don't get caught staring down a two-headed dog from Hagan's Star with your blaster in the wrong hand. You're Alpo if you do.

Spacewrecked shows a few flaws, or maybe it's just a rip in the space/time continuum. Particularly troubling is the ghostlike appearance of objects in rooms that you saw earlier as empty. Directional controls, which turn your field of view 90 degrees, don't always produce the expected results.

Other commands aren't documented in the main manual, but they do show up on an additional game card. (The up- and down-arrow keys, for instance, let you go from deck to deck.) The worst flaw, though, is the utter absence of a graceful exit from the game. If you want to quit Spacewrecked, you have to reboot your PC.

Even with these petty annoyances and its relatively shallow storyline, Spacewrecked is terrifically addicting. It's got a great opening soundtrack, impressive graphics images, and a lot of weapons to boot. With 20 ships to explore, countless aliens to slay, and a fleet to save, Spacewrecked should keep you lost in space for a long, long time.

Konami, 900 Deerfield Parkway, Buffalo Grove, IL 60089-4510, (708) 215-5111; 640K IBM, Tandy, and compatibles (768K for Tandy TL systems); EGA, VGA, MCGA, Tandy 16-color; supports AdLib, Roland, Sound Blaster sound boards, Tandy sound; supports keyboard, mouse, or joystick; $49.95

NOVA 9

By Eric Grevstad

Never mind whether America can compete with the Japanese. Just wonder if Earth can compete with the Arcturans.

Gir Draxon, the supremely evil Arcturan warlord vanquished at the end of Dynamix's arcade hit Stellar 7, has made an amazing comeback, assembled another colossal and deadly fighting force, and is ripping through the planets of the Nova 9 system as a prelude to annihilating the Earth. And what's the best that Terra can throw at him? The same as before: one person driving one tank.

Better Than Before

Some things do change, though. In Nova 9, the slam-bang sequel to Stellar 7, you're not the anonymous armored jockey of the original, but the long-haired, lantern-jawed Captain John Alex. You lost your wife Sarah in the first war with Draxon's hordes, but have her computerized soul (S.A.R.A.H., for Synergistic Advanced Resource Aesthetic Hybrid) to keep you company.

Stellar 7's superpowered Raven tank has been replaced by the even more awesome Raven II — a streamlined cross between a stegosaur, an F-16, and the Batmobile. Instead of seven, there are nine worlds to conquer before you finally meet Gir Draxon. Best of all, Nova 9 tops Stellar 7 in action, graphics, and atmosphere from start to finish. As shoot-'em-ups go, this is spectacular.

To Gir, Without Love

Nova 9 has a 16-color EGA mode, but the game richly deserves a VGA display. At the beginning, and then periodically as you advance through the planets, animated narrative sequences appear in a narrow

Nova 9 sports top-notch graphics, action, and atmosphere.

window that gives the feeling of watching a movie in the "letterboxed" format used to show widescreen films on TV.

After an opening reminiscent of *Star Wars* — a testy Draxon emerges from a crash landing and establishes character by blowing away two innocent imitation Ewoks — the scene shifts to a hidden asteroid base, where a status report from S.A.R.A.H. spurs you to take the Raven II out of the garage and drive into the first of nine nightmares.

The Raven II is relatively easy to pilot with either keyboard or joystick (mouse controls don't amount to much), with the spacebar or fire button triggering the tank's mines and cannon.

Other weapons and resources — everything from lasers and shockwave shields to triple cannons and guided missiles — are available by collecting and activating the power modules scattered across the landscape or salvaged from defeated enemies, and also by teleporting between planets to earn an overhaul at home base.

The view from the cockpit shows your bank of power modules; a radar scope; shield, damage, and status indicators; occasional bulletins and wifely advice from S.A.R.A.H. ("That lizard seems to be covered with meta-armor, John. Your shots are just making him angry"); and a windshield full of attacking, exploding Arcturans. The function keys switch to outside and enemy views, including a floating camera view that lets you see the action from any angle. (You always get a panoramic outside view of your defeat, by the way.)

The game screens mix the usual polygon graphics images of enemy vehicles, obstacles, and flying debris with some gorgeous background paintings. But even the most scenic worlds — Kryon, with its icy plains and distant mountains, or Sauria, with its desert sun and multiple moons — are lethal. A lot of imagination went into making the planets in Nova 9 genuinely different, unnerving places.

High Noon for the High I.Q.

You'll move from grim deserts to pitch-black, lightning-blasted caverns, and fight foes ranging from swooping dinosaurs to deadly drone machines and chillingly creepy, monstrous insects. One planet's snowfields are defended by Hell's own snowplows; another's warped gravity turns your tank into a pinball on a table.

In Nova 9, simple shooting and steering skills aren't enough. The game's full of puzzles, force-field mazes, and nasty traps that oblige you to think as well as fight — as easy as trying to parallel park while under rocket and mortar fire.

Even at the easy level, arcade amateurs all too often see the Raven II's quadruple shields buckle, the windows crack, the radar and cockpit lights flicker and dim, and the controls grow sluggish and useless as Earth's ultimate weapon becomes a deathtrap. And if you do make it to the planet Malevolon, only to see the world turn red as an ungodly megatank appears and Gir Draxon himself sneers, "Welcome to your funeral, human," well, don't say I didn't warn you.

Missing Details

Nova 9 needs a way to save a game in progress; its music and sound effects are okay, but not as vivid as its visuals; and its action isn't as rocket-fast as that of Accolade's Hoverforce, though both graphics and game play are much richer.

It's also pretty tough for beginners, who may find the learn-as-you-go business of loading and using power modules a bit tricky. (Although it's not as hard as Stellar 7's hit-three-enemies-of-the-same-type-in-sequence rule.)

Nevertheless, Nova 9 is a sensational game, one that builds logically on its predecessor to deliver some unexpected surprises as well as booming, blasting action sequences. It's like being in a movie, not just a shooting gallery.

Dynamix/Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; 640K IBM PC, Tandy, or compatible; EGA, VGA; supports AdLib, Sound Blaster, Roland MT-32/LAPC-1 sound boards; no copy protection; $34.95

ALIENS ATE MY BABYSITTER

By Joey Latimer

You worry that this may happen to you. You're an eight-year-old boy wonder, your parents are out of town, and your babysitter's just been kidnapped by hungry aliens.

Okay, so maybe the plot is thin, but the title sticks to you like glue. And once you set out to save the sitter from the Bloogs of Fribbulus Xax (you play the role of Commander Keen, Defender of the Universe), you'll either think you've fallen into a Saturday-morning cartoon, or managed to wrest control of Calvin from the daily-newspaper comic page. Either way you win some PC grins.

You'll like Aliens' installation. It examines your computer and configures itself automatically. From there you just press a key to enter the *Computer Wrist Main Menu*, which (you guessed it!) looks like a computer on the wrist of Commander Keen. It's from here that you start, load, and save games, change the game's configuration, and even play Paddle War, a Pong-style game within the game.

Three difficulty levels let you match your skills to the game; you also get to pick how you control Commander Keen — joystick or keyboard — with the former a better bet for most. (The keyboard controls aren't easy to remember in the heat of battle.) Don't try the mouse: It only works with the *Wrist Computer Main Menu*.

In moments you'll exit a spacecraft on Fribbulus Xax and head toward a river. Reach the river and press the fire button, and you enter the colorful, scrolling world of Fribbulus Xax.

Searching for your sitter is like playing Elroy in a *Jetsons* cartoon — you have only a pogo stick, a neural stun gun, and your wits to keep you alive. Prizes are scattered around the screen, from sodas and pudding to banana splits and sliced pizza. Run over them to accumulate points.

Also around are the fauna of Fribbulus, such as the Flects, which have big teeth and reflect bullets, Bloogs, which are one-eyed green carnivores, and Ceilicks, purple creatures that hide in the ceiling and attack you with forked tongues. Fribbulus Xax is no place for the faint of heart.

Crossing the Booguards River is a matter of hopping, jumping, and shooting your way over pieces of broken bridges, all the while gathering points and stunners, which add more bullets to your arsenal. Joystick action is heavy, as befits an arcade game. You've got to keep your finger poised on the trigger, and know when to jump and when to shoot. One slip can send you jumping when you want to shoot, an embarrassing situation if you happen to land on a Nospike.

When you cross the river you enter the first Dome of Darkness — a place you can expect to spend some time trying to escape. The graphics images are colorful in the Dome, the scrolling is smooth, and the place is populated by countless annoying creatures. Besides the typical prizes, the Dome has several gems that are useful in opening doors. Floating platforms hover here and there, too — you activate them by pressing switches found behind the doors you unlock with the gems. If you hope to exit and head for new vistas, you'll need to explore the Dome thoroughly for gems.

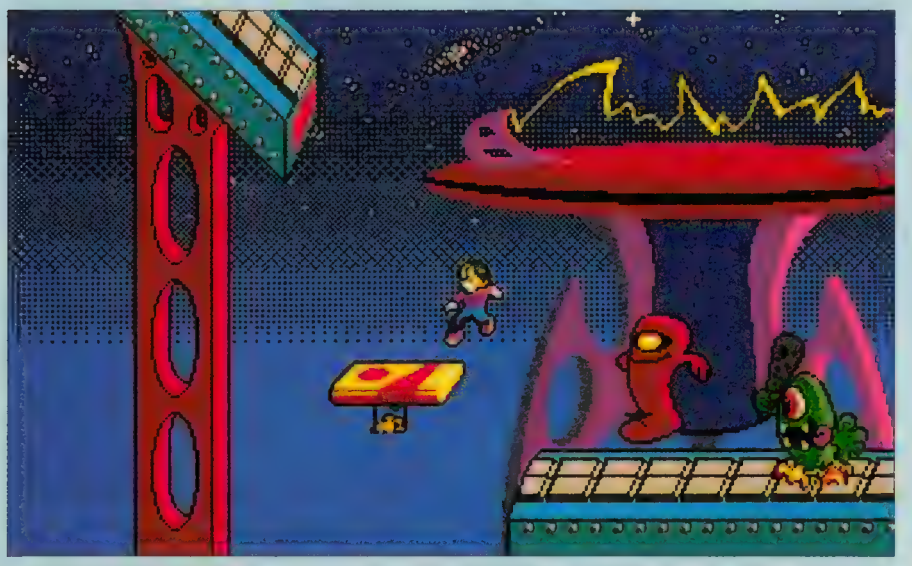
Aliens Ate My Babysitter suffers from a few bugs that you'll discover once you leave the First and Second Domes of Darkness and enter the Bloogfoods, Inc., factory. Jump onto a large platform and the game crashes, printing the message *SD_Playsound ()-Zero length sound*. If you reconfigure the game so that the sound's turned off, the problem disappears. A more minor trouble spot in the factory makes Commander Keen flicker when he's pressed against certain diagonal walls.

You can turn this dross into gold simply by relishing the silence — not hard after hours of brutal sound effects. The solution for the flicker is just as clumsy — avoid those walls.

Bloog bugs notwithstanding, you'll enjoy the arcade action of Aliens Ate My Babysitter. Play with a Sound Blaster or comparable audio board, and you'll have a hard time getting the theme music out of your head.

It's all too easy to get hooked on Aliens Ate My Babysitter. Aliens, eat my dust!

FORMGEN Corporation, 13 Holland Drive, Bolton, Ontario L7E 1G4, Canada , (416) 857-0022; 640K IBM PC, Tandy, or compatible; CGA, EGA, VGA; supports AdLib, Sound Blaster sound boards; $49.95



Aliens Ate My Babysitter is a fun trip into a cartoon-like world.

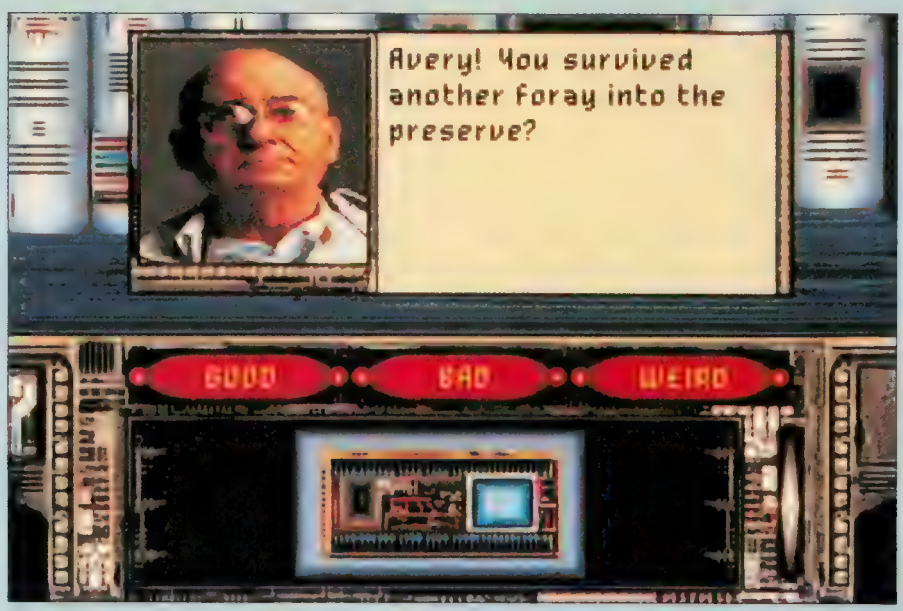
FREE D.C.!

By Randy Chase

It's a voter's worst nightmare. Washington, D.C., a city crumbling into ruin, is crawling with soulless creatures who force you to do their bidding.

No, Free D.C.! isn't a simulation of contemporary politics (as close to the truth as that scenario may be). It's a futuristic role-playing adventure that sports a delightful cast of characters, some intriguing claymation-style animation, a plot filled with subtle humor, and a simple game-playing interface.

Designed by Kellyn Beck, creator of such hybrid titles as Defender of the Crown and Centurion, Free D.C.! is an interesting blend of cinematic software and genuinely impressive art.



Free D.C.! features a variety of graphics images to create this Washington of tomorrow.

I've Been Away for a Long Time

You play the part of Avery Zedd, a human Popsicle who's just been thawed out after spending 1000 years in suspended animation. Your first day in the Human Zoo — Washington's newest attraction — may be your last unless you can discover which one of its seven residents is guilty of killing robots. The Keepers — machines who have as much heart as an IRS auditor — have granted you just 12 hours to accomplish your mission before the explosive implant in your body detonates.

This nasty world of tomorrow is ruled by robots, but features a splendid cast of characters, ranging from a ravishing blonde named Johnnie to a mutant curmudgeon named Harry. Fortunately, Free D.C.!'s plot goes beyond a whodunit quickly, and gets more complex as you explore and evaluate the motives of each of the seven residents. You need to find the lost pieces of the protective dectectron suit and enlist the aid of the mysterious Dr. Valerion to reassemble the parts into a working unit. Only then can you hope to free the humans from their robot captors.

Not all investigation, Free D.C.! includes some nice action sequences, too. Although the Human Zoo is purportedly a preserve for the study and preservation of its inhabitants, the grounds are populated with a variety of lethally hostile robots, including Death Poodles and Red Knights. As Zedd, you take on the automatons in combat, which only adds to the sense of immediacy as you race against the clock to find the dectectron pieces.

Stylish graphics combine images from a variety of sources to build the Human Zoo. The scenic backdrops begin with digitized photographs of famous landmarks in Washington, D.C., each painstakingly retouched to create the look of a city in ruin and decay. Claymation characters (such as the still-not-forgotten California Raisins) and digitized video of real-life actors combine to create a believable world that's graphically rich enough to make sightseeing worthwhile.

The secret of Free D.C.!'s appeal lies in the clever humor that transforms the Washington, D.C., of today into the Human Zoo of tomorrow. After visiting the Hairy-Faced Stone Man Shelter (you know it as the Lincoln Memorial), you'll delight in reading the historical fragments about the extinct race of stone creatures that included the Big Fire Lady in New York and the Four Fathers on the Mountain in the Western Wilderness. Not of the laugh-'til-you-drop variety, the humor in Free D.C.! is infectious and subtle, the sort that makes you grin the next day.

Atop the graphics is a simplistic interface with point-and-click menus that never offer more than two or three choices, and which demand no learning investment whatsoever. Don't be fooled, though: The interface may be simple, but the game's not. The interface fades into the background while the action flows seamlessly.

Unlike traditional adventure games, the world of the Human Zoo is nonlinear, so you can wander and explore without being forced into a predefined sequence of movements. In fact, there are many ways to get to Free D.C.!'s ending, a flexibility that prods you into playing again, if only to explore the alternatives. To change the challenges each time you play, the game even randomizes some of its elements, such as the locations of various items and the effectiveness of the assorted weapons.

Dialogue is rich and literary in Free D.C.!, and your interaction with its characters is subtly complex. Some people don't trust you initially, but with repeated conversations you can gain their confidence eventually and

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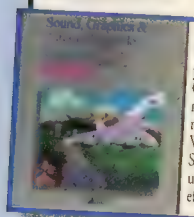

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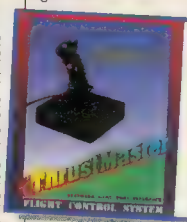

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obtain the helpful information they hold. Each character has his or her own personality, so you've got to try different approaches: Being witty and clever with one may gain some ground, while the next may respond best to belligerent threats.

If your PC has a sound board, an available Speech Expansion Module adds 4 megabytes of additional digitized speech and enhances Free D.C.!'s cinematic impact significantly. This expanded soundtrack should be part of the game itself, rather than a $20 add-on.

Free D.C.!'s designer, Kellyn Beck, is widely known for his hybrid creations that mix arcade and adventure elements. By pairing with Will Vinton, creator of claymation and the California Raisins, Beck is obviously looking ahead to multimedia.

Free D.C.! is a more-than-credible first effort of a new company. It's no ordinary role-playing adventure game. But then, D.C. is no ordinary town.

Cineplay Interactive, 2580 N.W. Upshur Street, Portland, OR 97210, (503) 223-4449; 640K IBM PC, Tandy, or compatible; VGA, MCGA; supports AdLib, Roland MT-32/LAPC-1, Sound Blaster sound boards, Tandy sound; requires hard-disk drive; mouse recommended; $59.95 ($19.95 for Speech Expansion Module)

KILLING CLOUD

By Wayne Kawamoto

Forget about leaving just your heart in San Francisco. Worry instead about leaving your heart, your lungs, your kidneys, your liver. Worry about just getting out of the Bay City alive.

Konami's Killing Cloud sets you smack in the middle of a Ridley Scott, *Blade Runner*-like apocalyptic city of the future, a San Francisco encased in a poisonous cloud. As a cop surveying the city in your flying hoverbike, you must maintain law and order in a disorderly and dangerous place.

To its credit, Killing Cloud features some nice flight simulator-style graphics images. But like the cloud that hides this futuristic city, its flaws — combined with a lack of clear documentation — obscure a potentially great game and make it little more than travel though the fog of frustration.

Weather — Toxic and Noxious

No crab cocktails at Fisherman's Wharf, no world-famous sourdough in this vision of the Bay City. What you find instead is a permanent and hazardous cloud, residents wearing protective gear, a powerful underworld, and buildings high enough to escape the deadly contagion.

Killing Cloud's flight-simulator-style graphics images are surprisingly detailed, displaying densely populated streets filled with buildings. Some districts are on hills — just as you'd expect in San Francisco. The Killer Cloud shrouds all buildings, and flying through the city feels much like driving through dense fog as structures slowly ease out of the murk as you approach. Well done.

Game play, though, leaves a lot to be desired. Nets fire from your bike's cannon to apprehend suspects, but these nets aren't available at takeoff. You must place the nets on a map, then later fly over these nets so that they jump to your bike. Why not simply make the nets available when the bike is armed with its other weapons? All in all, the "net-picking" is an artificial conceit, one that simply doesn't make sense, even in this city of tomorrow.

You also must place pups, futuristic paddy wagons, on your maps. Unfortunately, the documentation omits any mention of how to actually place the nets and pups. Only by trial and error do you discover the technique, but even then, some sites, for whatever reason, refuse to accept them.

More problems. Both pups and nets appear as blue dots on your radar, but if you accidentally fly over a pup, you destroy it. Killing Cloud's designers should have used different colors to distinguish pups from nets.

Later, if you arrest a suspect, you have no idea that you must follow the pup back to a police station. For all the help in the documentation — which tells you "all you gotta do is fly back to the station," but doesn't tell you which station — you might as well be making up the rules as you go along. Because there are several stations you can visit during a game, and because reporting to the wrong station after a successful apprehension makes you fail your mission, you

Killing Cloud's graphics are well done, but game play leaves a lot to be desired.

get the feeling quickly that you're playing against a stacked deck.

Even as a flight simulator Killing Cloud omits some basics. First, no maps are provided. There's one in the station house, but you shouldn't be asked to copy a map from the screen. It's hard to imagine a cop on a new beat without a map. Second, you have no compass. The dash shows which district you're flying over, but if you get lost in the fog (likely), you have no idea where you're headed until you cross into the next district.

No San Francisco Treat

Only in the chase does Killing Cloud live up to its billing. Aerial dogfights amid the buildings are challenging, if for no other reason than your hoverbike goes both forward and backward, something that makes for an interesting twist in air combat. Once you get in range, your heads-up display targets the suspect and you can fire at will.

The documentation may be extensive, but it simply doesn't go into the necessary detail to make Killing Cloud an entertaining, not elusive, experience. Instead, it features stories that may help develop the game's plot, but really seem more to do with copy protection than anything else. (Even here, Killing Cloud fails to deliver; you must identify X word on X line on page X, but the manual has two sections with identical page numbers!)

Killing Cloud is a game that could have been, but certainly isn't. Somewhere in this toxic haze of problems is a great game. In fact, once you figure out its quirks — not an easy task — it can actually be fun. But for most, the steps to get there won't be worth the frustration. Killing Cloud is definitely not a San Francisco treat.

Konami, Inc., 900 Deerfield Parkway, Buffalo Grove, IL 60089-4510, (708) 215-5111; IBM PC, Tandy, or compatible (10MHz or faster); CGA, EGA, VGA; supports AdLib, Roland, Sound Blaster sound boards; off-disk copy protection; $49.95

Les Manley in: Lost in L.A. — more surface than substance?

LES MANLEY IN: LOST IN L.A.

By Peter Olafson

You, too, can Valley Speak — rilly! You, too, can walk — in Los Angeles? — the same turf trod by the slow-witted lifeguards, beach people, body builders, club doormen, studio guards, plastic surgeons, movie moguls, mud wrestlers, pop stars (here christened Maladonna, complete with an *I Dream of Jeannie* hairdo, and snooty agents that populate the Southern California of our national ego. All you have to do is sit down in front of your PC.

The means of this magic transport is Accolade's Les Manley in: Lost in L.A., a game that, at least until halftime, has a nice tang to it. And it's not just the smog.

This VGA follow-up to The Search for the King pits the "little pocket-protector dude" against Southern California popular culture as he hunts for a missing friend in the wilds of Lala Land. Like its predecessor, Lost in L.A. takes nothing seriously, least of all itself. Unlike its forerunner, this trip is taken with the help of an extraordinarily easy-to-use interface.

Yet in the end, Lost in L.A., though a more-accessible game, is a less-challenging sequel; I finished it over a weekend, and I had a lot of time left over. Like the culture it parodies, Lost in L.A. has more surface than substance.

Mature Gamer: An Oxymoron

Lost in L.A. is essentially The Search for the Bean. Les' pal Helmut Bean — the world's smallest man, who's made it big as a stunt man on money-saving miniature sets — has invited him out to the coast for a visit.

No sooner does our geeky bow-tied hero arrive when he learns the old Bean and his main squeeze, LaFonda Turner, have vanished — along with a passel of other celebs. Rather than just figuring that Western civilization has crept forward a notch and getting on with his life, Les sets out to rescue his major bud, starting with the muscular maidens at The Pit in Venice Beach.

"Hi, I'm Les Manley," he says.

"Well, at least you're honest about it," one of them retorts, and we're off.

Great start. That made me laugh, and it wasn't the only time. Lost in L.A. is pleasantly irreverent (but never really nasty), offers opinions on everything, startles us now and then, and takes nothing seriously except having a good time.

Two striking new features in Lost

in L.A. are the almost total absence of typing (except the names for your saved games) and the addition of animated digitized close-ups of the game's principal characters — a number of whom are played by tender young things with nice physiques and rather limited wardrobes. In fact, some are very limited, and the cover of Lost in L.A. sensibly sports a *Recommended for Mature Audiences* sticker, presumably for LaFonda's towel-dropping bit and swimming-pool scene in the intro. Actually, there's nothing here you haven't seen on screen if you've played Leisure Suit Larry III at the bawdier levels. And if these bits lend the game a somewhat cheesy feel — like a collection of PG-rated bachelor-party snapshots — you can always blame it on Los Angeles.

The new interface is a decided plus in some respects. The game is fully mouse driven — just point. If there's something for you to learn at that location, or some dumb joke for you to hear, the cursor turns into a question mark. Click it, and Les walks to the scene of the crime and a Windows-like box pops up with a list of options. It's easy to use — even easier than Sierra's interface, because you don't have to know the available commands.

The game looks and sounds delightful. VGA gives Lost in L.A. a healthy glow — the computer-game equivalent of a George Hamilton tan. A splendidly detailed Hollywood Boulevard just pops right out of the screen. Lost in L.A. also has one of the jauntiest, crispest scores around.

The Incredible Shrinking Adventure

To tell you the truth, it's hard to get lost in Lost in L.A. Like Les, the game (on four 5.25-inch high-density disks) is small and nonthreatening. (Maybe Accolade took the locale way too seriously, and didn't, like, want to invade your space, y' know?) There are lots of places you can look at but not enter, and just five regions to visit on your map — the Boulevard, Venice, Paramounds (sic) Studios, Rodeo Drive, and Sunset & Vine — plus a few inaccessible areas to which you're taken automatically after you trigger certain events.

The puzzles are simple; you rely more on thorough searching and a willing ear than on deductive logic. It's a real old-fashioned pick-it-up-here-and-use-it-there adventure. At one point, when Les needs a DOS disk to boot his laptop, one of his bosom companions basically pulls it out of thin air. And it's almost impossible to go wrong in conversation, unless the dog pulls the PC plug while you're chatting.

Part of the problem may be that the new interface is just too friendly (how Southern Californian!). Typing commands gave computer adventures a longer life because players spent so much of their time experimenting with things they couldn't do, shaking every loose end dry. When the game was over, you knew that world as though you'd lived in it — because, in a sense, you had.

Not to say you won't enjoy Lost in L.A. I did, but I left hungry for something more substantial. In some ways, this isn't so much an adventure game as a glamorous, interactive storybook with lots of buttons to push and lots of descriptions to read.

To top it all off, I had a gathering sense toward the end of the game that the concept was running out of gas. The humor gets forced, the automated sequences become more plentiful, and the finale is a rather uninspired business that has little to do with the California ethos that got the game going in so smart a fashion.

Sorry. I'd expected more of Les.

Accolade, 550 South Winchester Boulevard, San Jose, CA 95128, (800) 245-7744; 640K IBM PC, Tandy, or compatible (10MHz or faster); DOS 2.1 or later; VGA, MCGA; supports AdLib, Roland MT-32/LAPC-1, Sound Blaster, Thunder Board sound boards; requires hard-disk drive; mouse recommended; $59.95

ROCKETEER

By Carol S. Holzberg

You'd think the black-jacketed Nazis would have gotten the idea after matching wits with Indiana Jones. But no — they just won't take a hint. They're still at it, battling truth, justice, and the American way in Rocketeer, Walt Disney Software's newest just-for-grins game. This time, though, they take on Cliff Secord, a brawny stunt pilot extraordinaire, not the brainy Dr. Jones. Of course, you know and I know that they'll still come out on the short end of the stick. Such is the life of evil.

In a bit of recycling magic, Disney takes bits and pieces from its movie of last fall, and in true arcade fashion, shuffles them onto the PC for some desktop theater. This electronic period piece — set just before World War II — distinguishes itself from other arcade/action games by virtue of its glorious digitized photographs of actual *Rocketeer* film sets and props. Dozens of delightful comic-book llustrations add to the look and feel of Rocketeer. Throw in a sound card or Disney's Sound Source, and you'll hear high-quality digitized speech, fully orchestrated music, and realistic sound effects. It's almost like being at the movies.

This action-packed game delivers classic arcade-style entertainment with more plot twists than a politician has on the campaign trail. There are planes to chase, guns to shoot, bullets to dodge, and fists to pummel. Although it's not flawless — Rocketeer doesn't make it easy for a joystick novice to get far in the game — it nevertheless stuffs several hours of entertainment into your disk drive.

The Unfriendly Skies

Rocketeer plays in four episodes — and no, you don't need to have seen the movie. (That's a good thing really, because it didn't exactly set records at

Rocketeer includes digitized photos of the film's actual sets and props.

the box office.) Each episode demands different skills. The first takes place over Chaplin Field, where you, as Secord, the seasoned race pilot and aerial ace, navigate your racer around the pylons. You and the other challengers are scrambling for the coveted Bendix National Air Trophy.

You even get to pick from three vintage planes — a flashy red Wedell-Williams, a speed-setting sky-blue Caudron, or a stubby-looking yellow Gee Bee. You can win in any plane, but each features a unique flying style. The Gee Bee, in real life a superstitiously dangerous airplane, seems like your best choice.

No matter which plane you fly, keep your engine throttled up and one eye on the flight window at the bottom right-hand side of the screen. This window lets you see the race from the pilot's perspective and gives you a sense of how your plane is doing.

Winning isn't guaranteed, though. You're allowed only one crash before you're grounded. It takes more than a little patience and lots of practice to reach the winner's circle.

You have to log two consecutive victories before you get a chance to pilot the Cirrus X-3, the ingenious rocket pack that turns Cliff Secord into the Rocketeer. Cirrus technology is so advanced that even the Nazis want to steal it.

The Plot Thickens

To win at Rocketeer, you must successfully retrieve the stolen rocket plans, Secord's girl, and Peabody, Secord's wise-cracking mechanic buddy. Without the password you're awarded after completing the air race, though, you can't go on. Each time you finish a new episode, you pick up another password.

If you know its name, though, you can play one of the three later scenarios. But because Rocketeer lacks a save option, be sure to complete an entire episode before stopping. Otherwise you'll have to replay it from the beginning next time.

Rocketeer's other arcade scenes send you into the sky in a rocket-propelled battle with the Nazis, square you off against even more Germans in a blaze of gunfire, and set you boxing the Nazi leader atop a giant Zeppelin airship. Fast reflexes and accurate joystick, mouse, or keyboard control are mandatory. Only the young live through stuff like this.

Unfortunately for the older and slower among us, Rocketeer plays at only one level — hard. There's no way to vary the challenge for beginners or experts; nor are there options to play against a friend or a computer adversary. Rocketeer is for loners only. Another omission is the lack of a high-scorers list, a feature found in most arcade games. That's strange, because the program does keep track of points scored and hits made; it just doesn't save them to disk.

A quick call to Disney Software's Customer Service (it's not toll-free) connects you with an expert who can provide enough hints to help you past any of the episodes, so that you can move safely on your way to the grand finale. You'll discover how to win the race, mow down malevolent Nazis in the hangar, and pilot the incredible Cirrus X-3 in pursuit of the enemy.

If amusement's your middle name and action's your primary game, then Rocketeer won't disappoint you.

Walt Disney Computer Software, Inc., 500 South Buena Vista Street, Burbank, CA 91521-6740, (800) 688-1520, (818) 841-3326; 640K IBM PC, Tandy, or compatible (10MHz or faster recommended); DOS 3.2 or later; EGA, VGA; supports AdLib, Roland, Sound Source, Sound Blaster, PS/1 Audio sound boards, Tandy sound; supports joystick and mouse; hard-disk drive recommended; off-disk copy protection; $49.95

CONQUESTS OF THE LONGBOW: THE LEGEND OF ROBIN HOOD

By Peter Scisco

Think quickly. What do Sean Connery, Errol Flynn, John Cleese, Kevin Costner, and a fox from Disney have in common?

They got to steal from the rich and give to the poor, of course. They played the part of the legendary Robin Hood, that bandit with a heart of gold

(or in Cleese's case, a head of stone).

The dream of living the life of a well-intentioned outlaw is a persistent one, and perhaps is the reason Sierra's Conquests of the Longbow: The Legend of Robin Hood works as well as it does. It takes a character only the famous usually play and lets anyone live vicariously in the depths of Sherwood Forest, fighting the notorious Sheriff of Nottingham and wooing the striking Maid Marion.

Designed by Christy Marx, the one who gave us the King Arthur legend in the Conquests of Camelot two years ago, Conquests of the Longbow is a mixture of legend and history (and there's always more of the former than the latter in any retelling of this story) that re-creates a fantasy environment within the framework of a typical puzzle-oriented Sierra adventure game.

Smell o' Vision

Your aim is to collect enough money to pay the ransom for King Richard, who rots in a foreign prison while his brother, King John, stiffs the locals with high taxes and solidifies his power base with the help of a corrupt Church.

Conquests of the Longbow shows Sierra's art-and-design expertise at its best — the graphics are stunning and the detail is lush throughout. You almost can smell the green trees and the game roasting over open fires. But this universe — from forest and town to their surrounding environs — though large, is inconsistent. You can, for instance, walk both north and northeast from the outlaw camp to a glade to practice your archery. It's possible to wander around the forest for hours without seeing anyone but the occasional leprechaun. (Well, it's a legend, after all.) If you get tired of wandering, you can use a map of the forest (and an embedded map of Nottingham itself) to take shortcuts. Simply click on the location where you want to go.

Not every location is visible on the map at the start of the game; as you solve puzzles and take action, other locations are revealed. Unfortunately, the map doesn't show your position, a failing that's particularly galling in the early stages of the game when you're trying to get your bearings. Experienced players may enjoy wandering through the forest searching for clues to Robin's conquest, but beginning adventurers could use some help here. An option that indicates your place on the map would have been nice.

The adventure puzzles of Conquests of the Longbow follow the usual route of collecting objects. (Few things in an adventure game are there just for looks.) You either use those objects at the right time yourself, or pass them to the right person. This involves visiting scenes at the right time and choosing the proper course of action, all while keeping in mind the story's plot, so that you can remember which role you play. This kind of adventure may be less than satisfying to veteran gamers who appreciate the comparative freedom of a less-restrictive interaction between player and story characters. (But at the same time it's a major hurdle for adventure-game newcomers.) Sierra's icon-based controls speed up the game and let you concentrate on the plot — which in this case is well-developed, if familiar.

You'll also enjoy the dashes of humor that run throughout Conquests of the Longbow, from the darting elves to the bad puns (lay your hand on the ewe at the widow's cottage, for example). Failure, of course, brings its own brand of dark humor, as Robin's friends debate his mistakes and lament his passing as they drink their grog. You'll have plenty of chances to hear their remarks, believe me.

It's your turn to rob the rich in Conquests of the Longbow: The Legend of Robin Hood.

Take That, Varlet!

Of course, you couldn't play the Robin Hood role to the hilt without a bit of archery and some old oaken cudgel. You'll get plenty of that here, too. In fact, it's not too far from the beginning where you can get yourself and a fair maiden out of a jam by using your bow. The bow and quarterstaff elements are arcade-oriented aspects of this game, but you can modify them or even eliminate them, in some cases, so that you can concentrate on the puzzles, rather than on your quick reflexes.

And no tale of Robin Hood would be complete without a hearty group of outlaws dressed in Lincoln green to join you in your exploits. All your favorites are here — Little John, Will Scarlet, Friar Tuck, and others. Nor would any retelling of *Robin Hood*

do justice to the legend without the romantic link between Marian and Robin. That's here, too.

You can track your progress by noting how well the story proceeds, but you can also keep track of the number of points you score, the amount of money you've collected for King Richard's ransom, and the number of outlaws you've left in your battle against King John and the Sheriff of Nottingham.

If you enjoyed the combination of adventure and myth that Conquests of Camelot brought to the PC, Conquests of the Longbow will prove equally pleasing. A good story based on a familiar legend, strong characterizations, a slew of intriguing puzzles, and a well-crafted gaming environment all place Conquests of the Longbow square in the center of the target.

Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; 640K IBM PC, Tandy, or compatible; EGA, VGA; supports AdLib, ProAudio Spectrum, Roland, Sound Blaster, Thunder Board sound boards; mouse recommended; $59.95 EGA, $69.95 VGA

ULTIMA UNDERWORLD: THE STYGIAN ABYSS

EYE OF THE BEHOLDER II: THE LEGEND OF DARKMOON

By Barry Brenesal

Late-winter blahs? Forget fun in the sun. Instead, book a trip the Addams Family would relish — an all-expenses-paid tour of an evil-infested dungeon.

No, not just any dungeon, not some two-bit, two-dimensional locale, but a place where you live (and die) in real time, where you shoot arrows and watch them vanish down corridors, where you battle salivating monsters who stand in your way, where you grab souvenirs from the dead and defeated, and run like hell from those who want to turn you into a bloody spot on the stone floor.

Ultima Underworld offers plenty of 3D battles on all kinds of terrain.

Interested? Then how about two of these kinds of dungeons?

In Origin's Ultima Underworld: The Stygian Abyss, you're the Avatar, virtuous hero of all the other Ultima episodes. Accused of complicity in a kidnapping, you're tossed into the Abyss to find the victim. SSI's Eye of the Beholder II: The Legend of Darkmoon puts your party of four in a temple where, it's rumored, sinister and evil forces gather. In both games you're there for the duration, with no escape save victory or death. (Or save and quit. Fortunately, you can save up to four games simultaneously in Underworld, and up to six in Legend.)

There are remarkable similarities between these programs — nearer simulations, really, than games. Each offers a three-dimensional window into an unexplored, alternate universe.

Both hand you literally hundreds of hours of role-playing entertainment. Which you pick depends on your own likes and dislikes. Do you prefer outstanding visuals and constant combat, or would you rather head for the realistic high ground?

The Real Estate

Visually, Eye of the Beholder II is the more striking of the two. Its VGA screens employ deep colors, lots of detail, and subtle shading. The rich, ornate wall designs of the final temple level, for instance, are perfect proof of what's possible in game pictorials.

By contrast, Ultima Underworld is a less-glamorous place, where the dirt looks dirty and the marble is cold and hard to the touch. Realism is the keynote to this dungeon, and unlike in Eye of the Beholder II, you'll need torches, candles, or light spells to see it.

Origin and SSI both employ sound and music to similarly impressive effect. Both companies have come up with dark, massive, slowly changing orchestral chords that sound like the tunes of doom itself. Music is limited in Eye of the Beholder II to the opening credits and to some attractive animated sequences, but that's not a problem. It's more eerie and threatening, after all, to hear feet softly padding behind you *sans* orchestra. In fact, you'll have more fun shutting off the music in Ultima

Underworld and taking a full dose of paranoia instead.

Getting Around in Your Dungeon

While travel in Eye of the Beholder II is at right angles along a two-dimensional plane, Ultima Underworld's terrain includes plenty of diagonals and uneven cave floors. You'll trudge up hills, bounce off curving walls, leap across small caverns, and bob up and down as you swim through chilly, infested waters.

Given the easy lay of the land, walking is simple in Eye of the Beholder II. Not so in Ultima Underworld, where movement follows the direction you click, at a speed that grows greater the closer your mouse is to the screen edge. The alternative keyboard method — in which speed increases the longer you hold down a key — is simpler to master. A mouse or trackball, though, is essential in both dungeons, because they make identical, extensive use of object icons.

Click and drag these icons — which represent weapons, scrolls, food, and armor — from the ground onto your adventurers, or into each character's inventory. Baggage in Eye of the Beholder II is limited arbitrarily: Each character can hold and wear up to 27 items, regardless of weight.

In Ultima Underworld, the number of stored items is nearly infinite (because you can place things inside boxes, backpacks, and sacks), but their weight keeps you from lugging around more than a beefy truck driver could manage. It's almost a pity, because there are so many items littering the lairs and abandoned campsites of Underworld. That plate mail lying on the ground, for instance, looks very inviting, but it's so much heavier than the leather vest you're wearing. Is it worth leaving behind your second-best sword? You get to decide.

Although the narrow caves of Eye of the Beholder II provide more than enough thrills and battles for even a jaded warrior, each dungeon in Ultima Underworld is more spacious. That size and scope come at a price, however: Underworld eats up 14 megabytes of hard-disk space when you load all the options, which include digitized sound and brief, animated scenes. It wants 550K of RAM and a megabyte of expanded memory, minimum. Use a good disk cache if at all possible, too, and remember, you can speed things up by dropping the simulation's resolution. It comes preset for hi-res, with low, medium, and very high as alternatives.

Prepare for Battle

No dungeon would be worth your time if it didn't throw a good assortment of bad-tempered monsters at you. There are plenty in both games. Eye of the Beholder II's evil brood come in two basic kinds — small and nasty or huge and nasty — but Ultima Underworld monsters vary from floor-crawling rotworms to flying, dodging gazers. It's a good thing you can look down to get a better view of the thing that bites your hand or foot.

Eye of the Beholder II's monsters attack whenever possible as a group, with a maximum of four to a square. None duck, retreat, or act on personal initiative. Their Underworld equivalents, on the other hand, fight individually, one to a square, sometimes even getting in each other's way. (It's most satisfying to see a goblin accidentally spited by a fellow gang member.) Because the enemy algorithms are figured by character rather than group, though, it's possible for your hero to get hurt from two or three sides as your Ultima Underworld attackers seek to surround and destroy.

Sure, you can weave around and try to avoid the incoming blows, but so can your opponents. To make your strikes effective in Ultima Underworld, you need to direct them at the enemy in one of nine invisible quadrants. Because it takes time to release an attack, your chosen victim may no longer be in that quadrant when the weapon arrives.

Hand-to-hand combat is similar in both Eye of the Beholder II and Ultima Underworld. You can change weapons, advance or retreat, slide left or right, and prepare and cast spells from a distance. Ultima Underworld goes a little further, actually showing your character's weapon hand and its contents during conflict.

But don't expect to succeed without some serious spell-casting skills. In Eye of the Beholder II you gain spells with experience and cast them with a mouse click. Experience, though, is only half the ticket in Ultima Underworld, where you also have to find runes that represent the first letter of each word in a spell.

Getting There Is All the Fun

Eye of the Beholder II and Ultima Underworld are both quest oriented, but each has its own victory philosophy. Eye of the Beholder II's is more direct: Fight the enemy, solve complex puzzles, fight the enemy, find friends to join the quest, fight the enemy. Because your initial quartet begins with advanced skills and weaponry, the enemy must have as much or more skills and weaponry to retain any sort of game balance. The accumulated strength of both groups can become ridiculous as the game progresses. It's along the lines of "my atomic bomb's bigger than your atomic bomb." But there's no denying the excitement of these frequent battles, particularly when you survive.

Ultima Underworld, by comparison, is slower to develop and may even seem dull at times to anyone who craves constant action. As compensation, there are vast areas of unknown territory to explore, people with which to speak, items to trade, and knowledge to gain. Automapping is a helpful part of Ultima Underworld. You can even add brief map notes (using a quill pen on parchment, no less) at any location in the game.

Want to know what lies ahead of you in the dark? Internal gaming logic is one of Ultima Underworld's strongest points — you can really count on the

Stygian Abyss to make sense. Whatever you find has a reason for being there. This dungeon *lives*.

In comparison, Eye of the Beholder II is logic poor. Because your party is the first group of decent folk to penetrate Darkmoon Temple's subterranean corridors, it seems a little ridiculous to encounter fireball traps and endless legions of the walking undead.

The Bottom Line

How does this dungeon duo compare? Ultima Underworld appeals to gamers who want that extra dose of virtual reality, and who relish the exploration of a new, magical universe. But Eye of the Beholder II should be the pick for those who score a game on its visual presentation and ease of movement, and who are addicted to frequent and heavy combat.

Neither simulation shorts you on features, though their strengths are relative. Eye of the Beholder II, for instance, offers complex puzzles, strangers to befriend and join, and a dungeon filled with mysterious, beautiful objects to collect. Ultima Underworld has plenty of terrifying 3D battles set in all kinds of terrain, with a host of dangerous foes and both mundane and magical weaponry.

Yet Ultima Underworld carries a high price tag in dollars spent ($20 more at full retail), hardware required (550K RAM, 1 megabyte of expanded memory, 14 megabytes of hard-disk-drive space), and graphics restrictions (VGA only). But its complexity and size mean a longer play — probably five times as long as Eye of the Beholder II. If you relish the ultralong role-playing fantasy quests such as Ultima VI, Might and Magic III, or Bane of the Cosmic Forge, Ultima Underworld should be your first choice.

Both are as addictive as role-playing games get, with enough depth to keep you interested and intrigued as you hack and charm your way to success. The dedicated role player will want both on the computer's hard-disk drive. Stock up on plenty of real-life rations before you set off on your journeys — and good luck. You'll need it.

Ultima Underworld: The Stygian Abyss: Origin Systems, P.O. Box 161750, Austin, TX 78716, (800) 999-4939; IBM PC, Tandy, or compatible (286 or higher, 386 recommended); 550K RAM free and 1MB EMS; VGA; DOS 2.1 or later; requries hard-disk drive (14MB free); supports AdLib, Roland MT-32/LAPC-1, Sound Blaster sound boards; $79.95

Eye of the Beholder II: The Legend of Darkmoon: Strategic Simulations, Inc., 675 Almanor Avenue, Suite 201, Sunnyvale, CA 94086, (408) 737-6800; 640K IBM PC, Tandy, or compatible (286 or higher required); EGA, VGA, MCGA; DOS 3.2 or later; supports AdLib, Sound Blaster sound boards; requires hard-disk drive; mouse recommended; $59.95

DRAGON'S LAIR II: ESCAPE FROM SINGE'S CASTLE

By Marshal M. Rosenthal

Malls are teenagers' turf. That goes as much for the ubiquitous mall arcade as anything. Although the parade of adolescent fashion may fascinate you, the crush of the crowds and the rush of quarters from your pocket have their down sides. Besides, you can satisfy your urge for arcade action just as easily in front of your home PC.

There's no better example than Dragon's Lair II: Escape from Singe's Castle, an arcade game that's come straight home from the mall and has landed in your PC. A sequel to Dragon's Lair, a game from years back that used a laser-disc player and animations brought to life by Don Bluth, Dragon's Lair II features the same — or even better — graphics and animation as the mall box.

Unconventional in its mechanics and play, Dragon's Lair II is an adventurer's foray into a world filled with choices, not just chaotic sword play.

Dirk's Back

The original Dragon's Lair set itself apart from the run-of-the-mall arcade games by virtue of its laser-disc player (which accessed fully animated graphics images) and its unusual player control. Dragon's Lair II on the PC may not include a laser disc, but it does follow in its father's operational footsteps.

Rather than make the heroic Dirk the Daring run here, jump there, stab, slash, and hack, you make simple decisions — and anticipate Dirk's actions. This branching approach to gaming, once popular in text adventures, has been transported to an animated world in which you decide the next move.

Dragon's Lair II continues the saga of the brave and fearless Dirk. He's traveled throughout the many levels and rooms of the castle and defeated the horrific Singe, but he still can't find the beautiful Princess Daphne. Now she's a prisoner in the foul hands of the evil Shapeshifter, former servant to Singe, who's out for Dirk's head. Dirk, and you, can expect plenty of trouble as you pass through the many previously unseen rooms and passageways of the castle. Your primary goal is to reach the Shapeshifter's den and destroy him, so that you can free Princess Daphne. A secondary ambition — secondary only because the PC lets you live again and again — is to simply stay alive.

Game play in Dragon's Lair II is as you'd see it in the mall. You don't actually control Dirk's moves, but you do control his reactions to what's going on around him. You do this by indicating the direction he should be going, or by having him draw a sword for fighting (or use a tool). Sometimes more than a single action is required on your part. Watch the animation to get a feel for what's going on and how best to keep Dirk alive. (He has but three lives.) Nicely enough, Readysoft

You'll need plenty of eye/hand coordination in Dragon's Lair II.

provides some hints for each of the game's 15 levels, most in the form of telling you what to expect in each scene.

That doesn't change the need for some excellent eye/hand coordination. You'll need plenty of that, what with tough times ahead in places such as the Dungeon Room and the Lava Field of the Mudman.

Sound effects and music are the equal of what you'd hear in the arcade, assuming, of course, that you have a sound board installed.

One of the best things about playing Dragon's Lair II at home rather than at the mall is the faster graphics you'll see on the PC. While the mall machine uses a glacially slow laserdisc player to retrieve the game's animation, you get to use your PC's speedy hard-disk drive. And those graphics images are sharp — in VGA, they're a bit better on the PC than in the arcade. Unfortunately, if you play on a CGA or Tandy 16-color system, the program converts these graphics images on the fly, slowing things down somewhat. It doesn't affect game play, but it makes the wait for the next scene a bit nervewracking and tends to throw you off your arcade stride.

The key to playing a game such as Dragon's Lair II is understanding the difference between it and the typical action/adventure. This is a game of making choices, not one of actually initiating actions. All the available possibilities already are programmed into the game — you must pick a direction for Dirk to travel, decide when to fight, or choose when to grab something. You must decide when to initiate an action, then do it not only at the appropriate time, but in the proper order. You make these decisions using either the keyboard or a joystick. Although the keyboard is standard and the joystick preferred, you can use both together. You may find yourself pounding the keyboard or wrestling with the joystick in Dragon's Lair II, but then, it's an arcade game, isn't it? Just remember to anticipate the action — because you don't really control Dirk, you must make your choice before the game jumps to the next sequence on its own.

The game's only failing (it's a small one) is that you're so tied to making Dirk's decisions that you don't have the luxury of sitting back and watching the excellent animation in progress. Although the game has a save feature, it really needs a repeat mode so that you can enjoy the scenes you've already lived through. Other games, simulations and sports games mostly, have this sort of videotape-like function. Escape from Singe's Castle should have it, too.

All things considered, this translation of an arcade game into a solid home title for the PC isn't bad. You relish the action, enjoy the animation, and most of all, love the solitude, as you play arcades at home, where they belong.

ReadySoft, 30 Wertheim Court, Suite 2, Richmond Hill, Ontario, Canada L4B 1B9; (416) 731-4175; IBM PC, Tandy, or compatible; 640K RAM; CGA, EGA, VGA, Tandy 16-color; supports AdLib, Sound Blaster sound boards, Tandy sound; off-disk copy protection; $59.95

NO GREATER GLORY

By Ed Ferrell

You won't have to pretend you're in the saddle riding old Traveller to enjoy No Greater Glory, SSI's new Civil War simulation. This top-down model of the War Between the States will keep you in your office for the duration, where you'll breathe more cigar than gunpowder smoke.

No Greater Glory brings you into the middle of the action by putting you at the top of the Federal or Confederate government. No field-level decisions here. Instead, as Commander-in-Chief you set economic policies, make political and diplomatic appointments, and issue military orders to meet your side's unique goals.

If you like the minutiae of modern war, the detailed positioning of men and horses, cannons and ships, you'll think No Greater Glory is brain dead. But if you want to truly test your strategic and managerial skills under pressure, if you think that wars are won (and lost) in the executive suite as much as on the battlefield,

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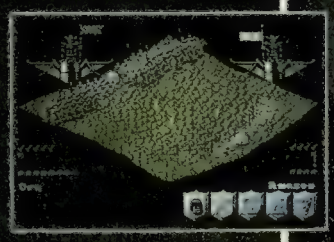

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LOVE THY NEIGHBOR ?
OR PUT HIM TO THE SWORD?
THE CHOICE IS YOURS.

DEVELOPED BY GRAFTGOLD

AMIGA SCREEN SHOTS SHOWN.

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this simulation should head for your hard-disk drive.

Abe and Jeff, Separated at Birth

No Greater Glory begins in early 1861, with the country poised for war. As President Abraham Lincoln, you have a burning desire to preserve the Union and end slavery. In your spare time, you'll also have to win the election of 1864. Play the role of Jefferson Davis, and you need to mobilize your outnumbered forces, fill a war chest, and get supplies past the Union blockade.

A point-and-click interface makes it easy to select your cabinet from a colorful palette of 12 politicians, but choosing a group to help you achieve your goals demands compromise. Even back then, political stardom had little to do with intelligence or ability — the Quayle factor predated our times. Overlook representatives from certain regions or factions, for instance, and they'll scream in protest and petition you to reconsider. If you don't appease the whiners, you may lose their support later — when you really need it to keep the wolves from the door. It's tough to make the subtle compromises necessary to appoint a strong, balanced cabinet — and keep everyone happy at the same time.

A colorful control map prompts you to administer civil affairs. Testing your support in the border states can be nervewracking, and organizing subversion can backfire if your government is unpopular. Reports of support or dissatisfaction arrive from time to time.

You'll be surprised to discover that you must apply your administrative powers most delicately in those areas you control completely. Although you may think you need to suspend *habeas corpus* during these rebellious times (as Lincoln did during the war), even the loyal will express dissatisfaction at these civil-rights limitations.

Whether you take charge of the Union or lead the rebels, armed conflict is inevitable. You spend rail, naval, and river points to move troops and supplies into position on the strategic map. The Confederacy is definitely at a disadvantage, because it's forced to work with a frail railroad system that's better used to get cotton to the docks, than to move troops to the front.

Take command of the Civil War in No Greater Glory.

When Johnny Comes Marching Home

During the *Campaign* phase you can order your troops to march into enemy-controlled areas, but even here you deal with personalities. If you promote a junior officer to a prestigious command, you'll hear from other generals. And these aren't idle threats; a region can become rebellious if you continue to overlook its favorite son.

No Greater Glory's realism shows itself best when you're well into military action and you receive a report from a general who claims that he isn't ready to move (shades of George McClellan, the Union's best procrastinator in the real war). Replace him with a more-aggressive man, and the timid general loses prestige points, which in turn weakens your support in the region he represents.

You've got some tough decisions to make once battle ensues. Issue orders to hold at all costs, and thousands will die. Call for a delaying battle and fewer men vanish from the ranks. When you're outnumbered, you can order a raid, a tactic that may not keep you from losing ground, but one that certainly cuts your losses.

In desperate situations, and at the risk of the population's outrage, you can order your troops to scorch the earth as they retreat. They'll destroy rail and communication lines, and burn anything that may be of use to the enemy. The results of battle may require you to retreat, and severe losses further reduce the commanding general's prestige and support.

Even tougher fights take place in your office as you try to convince your cabinet to pass higher taxes, so that you can get more ships and supplies. Talking your government into passing a conscription bill (as did both sides in the war) may be impossible; if you're outvoted, you'll suffer at the polls. You may receive reports that some in your cabinet have developed a reputation for incompetence. Can you replace them with better men, and not upset the balance of power?

Political negotiation gets exciting when you appoint ambassadors to France and England. A successful ambassador for the South is looking for recognition or outright support, and by withholding cotton supplies you may coerce either country to intervene. For the Union, of course, the goal is to keep foreign powers out of the picture.

Designed by Ed Bever, a graduate of Princeton University with a Ph.D. in history, No Greater Glory is steeped in realistic flavor. Make plans as carefully as you want, but you'll realize quickly that no plan pleases everyone. Things can get ugly as you try to adopt winning strategies and keep the peace among your advisers.

No Greater Glory's manual offers two fine articles on the historical basis of the game, and the package includes a paperback edition of Stephen Crane's *The Red Badge of Courage*.

This simulation may disappoint players determined to control the movement of every man, but for those who have the stuff to take supreme command — and take responsibility for decisions — this is a great game. Welcome to the Civil War. Welcome to the big picture.

Strategic Simulations, Inc., 675 Alamanor Avenue, Suite 201, Sunnyvale, CA 94086-2901, (408) 737-6800; 640K IBM PC, Tandy, or compatible; CGA, EGA, VGA; requires hard-disk drive; mouse recommended; $69.95

PATTON STRIKES BACK

By Ed Ferrell

If war is hell, war games are hell to play. All too often they come with manuals thicker than the Pentagon's budget book, include more rules than the government has regulations, and take more time to master than the wars they re-create took to play out.

Patton Strikes Back is different. Designer Chris Crawford has taken the paperwork out of being a desktop general, and created one of the most unique computer war games ever to hit disk. Billed as the "war game for non-war gamers," this historical simulation may sport one of the easiest-to-use interfaces around, but it tests your strategic skills with a vengeance. This is a war game for war gamers, but it puts out the welcome mat for the inexperienced.

Wacht Am Rhein

December 1944 found the Allies at the borders of Germany. In a quiet section along the Belgian/Luxembourg/German border, in the forested, cut-up country of the Ardennes, the last Nazi offensive on the Western front unfolded.

Patton Strikes Back takes the famous Battle of the Bulge and distills it to a graphically rich game that re-creates Hitler's last-gasp attack. In reality, battle-hardened panzer divisions hurled themselves against a thin line of frozen American soldiers. On your PC, you simply point and click to send your divisions across the colorful map, order them to dig in, or maneuver them into combat. It's that simple.

You still have to maintain supply lines to your troops, anticipate and respond to the computerized enemy, and deal with weather conditions. It's just that the elegantly simple command system lets you issue orders quickly, a good thing because the Germans are ready to break out.

Crawford took pains to create a credible simulation without sacrificing playability. Patton Strikes Back doesn't overwhelm you with complex information as do so many other war games. Click on a division to activate it, and the program displays its name, strength, and readiness at the bottom of the screen. You can implement your plans quickly by ordering divisions into mobile mode for movement, attack mode for the assault, or defensive mode for the inevitable hold-at-all-costs strategy.

Keeping your divisions in supply, anticipating enemy thrusts, and holding critical geographic locations won't be so easy — especially with the clock running. Patton Strikes Back plays in real time, where action keeps going even if you're indecisive. You can adjust the game's real-time speed to suit you, but the clock is always there, ticking away.

The American goal is to hold as much territory as possible until Patton's reinforcements arrive, while the German goal is to carve a path to the sea, surrounding Allied armies and perhaps changing the course of

Experience the pressures of command in Patton Strikes Back.

the war. You can try your hand at the head of either side. Valuable towns and landmarks dot the topographical map (no artificial squares are visible in this game), and their control is vital to both sides' victory.

As in the real battle, Patton Strikes Back emphasizes terrain — even a handful of American troops in a city or on a ridge can bring the German advance to a standstill. You need to pay attention to the ground to succeed. Position your American troops, for instance, so that they can hold road junctions, cities, and rivers against the panzer onslaught. The easiest town to defend is one behind a river. Lone divisions in open country are at a severe disadvantage.

Picture This

When combat commences, you're barraged by digitized documentary film clips from WWII. Set in small pop-up windows, the ghostly black-and-white images surface and remind you that although you're sending electronic tokens into combat, they represent real men and machines. From time to time the screen changes completely and presents a newsreel-type picture with a pertinent, first-person anecdote from someone who was there. As you play, you'll learn about the times, the troops, and the tension of this military conflict. If you're totally unfamiliar with the Bulge, the history-book option lets you cruise through the anecdotes and information far from the heat of battle.

This graphically rich environment is a delight to experience, and the anecdotal details and documentary-style clips add an exciting element to war-gaming action. Play the game a while though, and those images, exciting and educational as they are the first time, start to sound like old war stories. If you want, you can disable the clips and other information.

On-call information changes the map display to indicate terrain control or each side's active supply lines. Activating the *Show Idle Units* feature highlights the divisions waiting for your orders. Although they may gain strength as they rest — particularly those units that have seen heavy combat — your victory conditions demand constant attacks and replies.

The lousy winter weather didn't let the Allied air forces participate for a full week — a large part of whatever success the Germans weaned from the battle — but when they do pitch in, the effect can be devastating on German troops and supply lines. Play with random weather instead of the historical default and you may get air support sooner — or not at all.

You're not alone in Patton Strikes Back. Tactical advice is available with a click of the mouse, and if you don't like the first thing you hear, ask again. Strategic choices can be frustrating enough when acting on your own, but even though your counsel's chest may have a few medals hanging from it, all advice is not good advice. The decisions are yours ultimately.

Real-time game play in an exciting documentary style makes this innovation-rich military simulation an excellent choice for the experienced and beginning war gamer alike. In fact, Patton Strikes Back may be the only war game with an interface easy enough for raw beginners to actually enjoy playing from the start. It would be a shame to keep these techniques locked into only one campaign. Here's hoping that Crawford takes Patton Strikes Back's interface to more battles, whether within World War II or outside of that most-important war.

Patton Strikes Back lets all of us — history nuts and the militarily apathetic alike — experience the pressures of command. If, as they say, war is too important to leave to the generals, then war games are too important to leave to war gamers.

Broderbund Software, 500 Redwood Boulevard, P.O. Box 6121, Novato, CA 94948-6121, (800) 521-6263; 640K IBM PC, Tandy, or compatible (10MHz 286 or faster); VGA; supports AdLib, Sound Blaster sound boards; requires hard-disk drive; mouse recommended; off-disk copy protection; $59.95

THE MIRACLE PIANO TEACHING SYSTEM

By Joey Latimer

"It's a miracle!" exclaimed my friend Mike as he dumped dirt on the floor and began demonstrating a vacuum cleaner he'd been selling door to door. Since cleaning up that mess, I admit to some anxiety at the mere mention of the word "miracle." So when UPS dropped off a large box that had "The Miracle . . ." spread across the cardboard, you understand why I quickly thought the worst. Was this a repeat of the vacuum experience? Or was it truly the at-home piano tutor I'd been expecting?

It was The Miracle Piano Teaching System, an all-in-one kit complete with keyboard, earphones, foot pedal, connecting cable, software, and keyboard overlay. Not only does The Miracle give you everything you need to learn how to read and play music on a piano, but it turns your PC into a patient music teacher.

It may not match the sound of a real piano, nor fool you into thinking you're under a real instructor's wing, but for the self-motivated, The Miracle Piano Teaching System is a great way to learn basic keyboarding skills.

Synth, Sound, and Setup

Strictly speaking, The Miracle keyboard isn't a piano, but a synthesizer, meaning it generates sounds electronically, rather than by using a hammer to strike a string. The Miracle's keyboard contains 128 instrument sounds, along with a variety of percussion sets and MIDI connectors for interfacing with other MIDI devices. Sounds play either through optional stereo speakers you can set on the top of the keyboard, or through the included earphones, which plug into the back of the keyboard. Compared to a standard

1.12
Finger Numbers - A Demonstration
The Miracle will play four notes: E, E, F, G.
The note F is a step up from E. The last note G is a step up from F.
Notice how the finger numbers are written above the notes.
E E F G
Follow the notes as they are played.
F F G

Learn the basics of keyboarding with The Miracle Piano Teaching System.

piano keyboard, The Miracle is a dwarf — only 49 keys, not the traditional 88. But because a full-sized, 88-key keyboard would be tough to situate in front of a computer, the reduced size is understandable.

Unpacking and setting up The Miracle took about ten minutes and posed no problems until I started to hook it up to my computer via the included serial adapter. My 386SX PC sports only two serial ports, typical for most machines, but I'd disabled one of the ports to use an internal modem (not all that uncommon) and had the other occupied with the mouse's plug. Because The Miracle's software supports a mouse, I had a tough choice — remove the modem or work without a mouse.

Two other problems emerged once the keyboard was up and running. The foot pedal, actually a sensor sandwiched between a piece of plastic and some foam, wouldn't work on the heavily carpeted floor unless I stomped on it. A foot-square piece of plywood as a base solved the dilemma. And the earphones, designed to stuff into your ears, continually fell out. A switch to a pair of Walkman-style headphones worked fine.

The Miracle Piano Teaching System software takes full advantage of VGA graphics and looks great on screen. Enter your name in the user log and the computer starts tracking your progress. Head to the *Main Menu*, an overhead view of six rooms — *Classroom*, *Arcade*, *Studio*, *Administration*, *Performance Hall*, and *Practice Room* — then point and click to make a selection.

Computer Classroom

Most of the piano instruction takes place in the *Classroom*, where a simulated instructor is always ready to guide you through the lessons. The Miracle Piano Teaching System assumes everyone is a novice when beginning, but if you've got some piano playing under your belt, you can advance quickly to the more difficult lessons. The PC always knows how you're doing. It records your performances and converts them to data (called *actual MIDI stream*) and compares your AMS with its own IMS (*ideal music stream*), which is the computer's recording of how the music is supposed to sound.

By comparing your playing continually with its own programmed idea of musical perfection, the computer can give you detailed information about the kinds of errors you're making, in turn letting you improve as you move from lesson to lesson. To my amazement, I was able to play Beethoven's *Ode to Joy* within an hour of hearing it for the first time. Now that's a miracle.

Play It Again — and Again

To see a report of your progress, choose *Administration* from the *Main Menu*. Here you see a list of the lessons you've started and completed, as well as an analysis of your overall performance, pitch, and rhythm. In *Administration* you can also set various system defaults and print certificates for completed lessons.

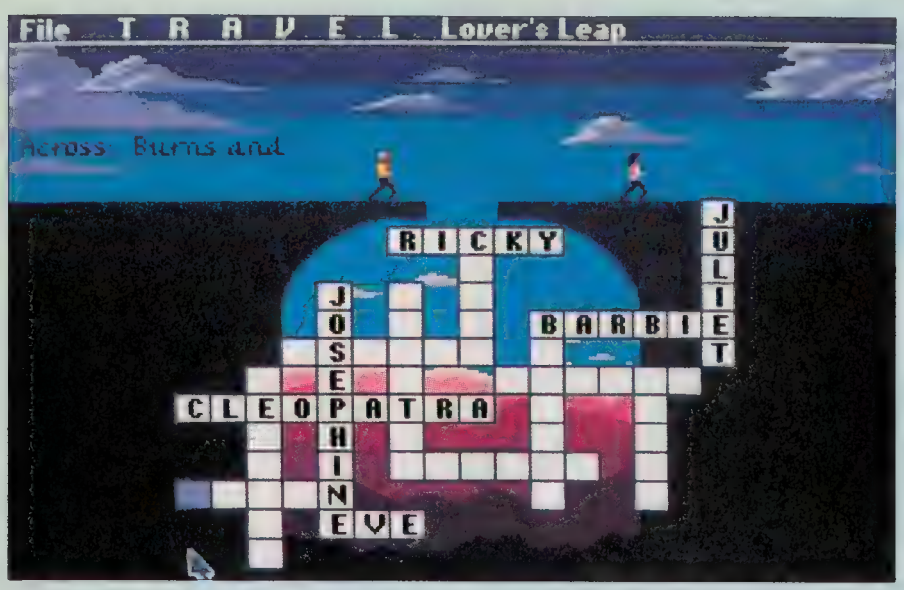
The *Practice Room* and *Performance Hall* let you practice what you've learned, and, once you've straightened out the kinks, play a mock recital. The *Arcade* lets you stretch out a bit by listening to a jukebox, or by playing colorful arcade games designed to reinforce your newfound skills.

When you're really getting hot you can record your new material in the *Studio*, which features an 8-track recorder complete with overdubbing. I recorded several tunes along with a metronome, but would have liked a feature for looping drums. The Miracle's well-written documentation not only explains how the keyboard integrates with your PC, but also features a welcome treatise on the history of the piano.

Not Quite Ivory, But . . .

Although The Miracle Piano Teaching System can't replace a real piano and a real person hovering over you, rapping knuckles with a baton, it's a great way for the musically deprived to learn the basics of keyboarding. And it's a lot less mess than Mike's vacuum cleaner.

Software Toolworks, Inc., 60 Leveroni Court, Novato CA 94949, (415) 883-3000; 640K IBM PC, Tandy, or compatible (512K with CGA); CGA, EGA, VGA; DOS 3.1 or later; one available serial port; $399.95



Take a bizarre but fun cross-country tour in Are We There Yet?.

ARE WE THERE YET?

By Cynthia E. Field

Getting there isn't half the fun. It's all the fun. Or so says Electronic Arts' Are We There Yet?, a travel adventure game for puzzle lovers that's as much a *National Lampoon* vacation for the PC set as anything you'll ever see.

You get to take a bizarre cross-country trip with the Mallards, a typically dysfunctional family. Seems they came in dead last in a cereal company's vacation giveaway. Drake, Mom, and teenage offspring Tiffany and Blip won a year's supply of Sweet 'n' Gritty, a nightmare concoction of instant hot cereal and insect repellent. And they won free admission to honest-to-goodness tourist attractions throughout the 50 states. You travel with the Mallards, solving puzzles along the way. Did you ever think you'd be so lucky?

It's a Gas, Gas, Gas

Are We There Yet? isn't anything like those endless geography games you've seen: You don't memorize the names of state birds or study demographic charts until the numbers wiggle. Instead, you complete a colorful United States map jigsaw puzzle before embarking on your journey in the Mallard family convertible.

As you travel from one place to another — learning fun facts about each tourist trap — you'll solve a slew of puzzles, some 200 brain-twisters in all. Although word puzzles dominate the 23 offered varieties, you can play Concentration, dot-and-tee puzzles, and tic-tac-toe, too. These car brain teasers are for diversion only, and aren't necessary to finishing the travel game.

Old favorites crowd the Are We There Yet? puzzle selection — crosswords, jumbles, word searches, and hangmen are all well represented. But more exotic challenges await your mental gymnastics, too, including concatenations, block puzzles, and X-Ors.

To solve a concatenation, you must select the correct numerical sequence of buttons to form a word or phrase. At Alabama's Coon Dog Memorial, just one of the country's more banal attractions, the buttons look like dog biscuits. Think of a block puzzle as Tetris with words; just assemble the variously shaped pieces — each contains word fragments — until you complete the target phrase or sentence. In X-Or, you turn puzzle pieces on or off to reveal a secret word or phrase.

Most puzzles, including living jigsaws where everything from fish to hot-air balloons swim and soar through a scene, show off your PC's animation talent. You can play each puzzle with the keyboard, but a mouse makes for more fun. Are We There Yet? offers colorfully animated full-screen scenes and a relaxing soundtrack that's perfect for cruisin' the country. And just as you can mute the car radio when it pulls in that one awful country & western station, you can turn off the game's music anytime you want.

Hit the Road, Jack

No strategy in this game. In fact, there's no right way to approach Are We There Yet?. Simply select a state you want to visit from the pull-down menus. Some state names are dimmed and unavailable initially, presumably to let you practice with easier puzzles before moving on to the toughest. But for the most part, the game doesn't restrict your rampant exploration. You can finish some of the puzzles in a state and leave others until later, for instance. The accompanying cluebook is an invaluable aide — some puzzles are real sticklers. On-line puzzle help is available, as well.

After you solve all the puzzles at a given destination — such as the series of word jumbles at Fort Humbug, Louisiana — Are We There Yet? rewards you with an animated scene and two pop-up windows. One features howlingly funny excerpts from a Mallard's travel journal. The other presents interesting information about the tourist trap itself.

Rough Roads

No cross-country tour's complete without some frustrating moments, and Are We There Yet? duplicates that as well, though it certainly didn't intend to. Play the word search at Ohio Sea World, for example, and the game refuses to let you select *pearl* and *nautilus*, two words needed

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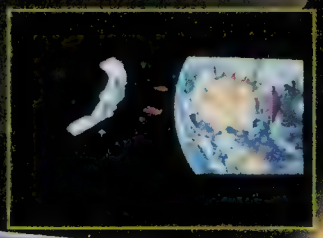
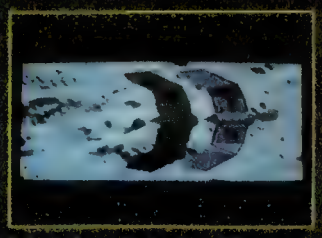


Your Ship

Our only hope is the XF 5700 Experimental Space Fighter (codename: MANTIS). Our first world government, Fist of Earth (F.O.E.) developed it to fight our enemy. Now they're looking for someone to fly it — in combat.



A Fighter Pilot's Dream

It's up to you to avenge Earth. You'll fly the MANTIS, a high-tech wonder armed with futuristic firepower.

The Enemy

The Sirians aren't your run-of-the-mill insect aliens. Individually, they're powerless pests, but together they form a powerful collective group mind capable of advanced technology that can obliterate the human race.

State of the Art 3-D

Fly the MANTIS in thrilling, realistic 3-D sequences. Brilliant graphics, cinematic digitized movements, chilling sound effects, and a stirring musical score add to the adventure.

Actual screens may vary.

Your Mission

Saving the planet from destruction is no small chore. The Sirians are returning to finish what they began. Are you up to the challenge?

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to finish the puzzle and collect the souvenir. (You need to gather enough souvenirs or puzzle pieces to complete the final jigsaw successfully.)

You might do a double-take at Fort Humbug, too. That Shreveport, Louisiana, tourist trap's puzzles, which cleverly feature words of consternation and dismay, offer up such tame slang as *shucks*, *rats*, and *heck*. Maybe there are people who still curse with the grace of Miss Manners.

All in all, the game's puzzles are wholesome and good-natured. The Mallards manage to be hilarious without resorting to rude, objectionable behavior. Parents of teenagers are sure to get a belly laugh or two when they read Tiffany's and Blip's wacked-out travel diaries. In fact, I think adults may enjoy this game even more than kids do.

Are We There Yet? throws you so many curves and challenges that visiting all 50 states in one sitting earns you a spot in the *PCGames* Hall of Fame, Fanatic Wing. So pace yourself. This isn't school, you know. Besides, when you're having this much fun with a computer, do you really care if you ever finish?

Electronic Arts, P.O. Box 7530, San Mateo, CA 94403, (800) 245-4525; 640K IBM PC, Tandy, or compatible; EGA, VGA, MCGA, Tandy 16-color; supports AdLib, Roland LAPC-1 sound boards; requires hard-disk drive for low-density 5.25-inch disk version; mouse recommended; off-disk copy protection; $49.95

KID PIX
KIDWORKS

By Carol S. Holzberg

The war for kids' hearts and minds rages on. Not satisfied with teaching shapes and letters to preschoolers, or geography, spelling, math, and history to elementary-aged children, software now wants to spark their creativity, too.

Kid Pix features "funtastic" tools that help kids create artistic masterpieces.

You can't call Broderbund's Kid Pix or Davidson's KidWorks games, but they do pack a wallop of fun. They may not keep score, but they can keep kids interested and entertained as well as any educational or edutainment package around.

Kid Pix, an amazingly colorful paint program, contains more "funtastic" drawing tools and surprises than you could ever imagine. Youngsters don't just sketch on an electronic canvas in Kid Pix, they produce artistic masterpieces with unusual brushes, electronic rubber stamps, magic erasers, and celebrity special effects. It's even bilingual, pronouncing letters and numbers in Spanish or English if your PC has a sound card.

KidWorks goes head to head with Kid Pix by providing a multifunction creativity kit that combines a word processor and picture dictionary with a host of paint tools, rubber stamps, and colorful icons. The result is a smorgasbord of integrated options. Like Kid Pix, KidWorks talks, but only in English. Unlike Kid Pix, KidWorks uses the PC's internal speaker, so it doesn't require a sound card to generate speech.

If you can find room in your software budget, buy both. But if you have to pick, buy the one that best matches the kids who will be playing — and creating — on the computer.

No Kidding Around

At first glance, Kid Pix looks and feels like a conventional paint program. Click-on icons, arranged in a palette down the left-hand side of the screen, present a variety of drawing options. You see the familiar — shape, line, free-form, and text tools, an eraser for mistakes, and a paint bucket for color fills.

Additional options appear in an icon ribbon at the bottom of the screen whenever you select tools from the toolbox palette. Pull-down menus at the top of the screen offer file management, image manipulation, and special goodies such as background sounds, Spanish text menus, and a rubber-stamp editor.

Look closer, though, and Kid Pix assumes a different personality. Every tool has its own special sound — something no "adult" paint program ever dreamed of including. Choose the paint-can tool and you'll hear paint splash as it pours onto the screen. Undo a mistake and the Undo Guy might utter "oops" or "oh, no." Pick the rubber stamp and listen to it hit the desktop. And when you clear the screen with the firecracker eraser, a fuse sizzles before

the screen explodes with a *kaboom*!

Kid Pix comes loaded for bear — preschool bear, that is. The entire drawing area is always visible, it has no potentially confusing scroll bars, and a *Small Kids* mode even hides the full menu bar to keep tiny artists from accidentally opening an inappropriate menu or wandering off into the nether regions of the PC's hard-disk drive. A mystery eraser uncovers a hidden picture beneath the canvas and the rubber stamp lets you select from a library of 72 ready-to-use imprints.

Letters, numbers, and symbols speak their names. Twenty wacky brushes let artists create pictures with lines that zigzag, pens that leak, soda-pop bubbles that gurgle, and circles that echo. One wacky brush sketches a trail of pine needles; another paints a line of alphabet letters or special words that kids type. There's even a brush that draws numbered points on screen for an instant connect-the-dot game.

Everything's kid savvy and almost kid proof. Pull-down menu options appear in large print, and animated pictures accompany each command to give nonreaders their chance at a masterpiece. Highlight *quit*, for instance, and its hand icon waves goodbye. Choose *paste* and the top of the glue bottle pops open. Click on *cut* and scissors snip.

If your kids like to doodle, paint, and sketch, but find adult-oriented applications too much to handle, turn them loose on Kid Pix. It transforms the desktop into a colorful fantasy world of amazing sights and sounds.

More Filling, Works Great!

If you think Kid Pix is a hard act to follow, try KidWorks — a program that can steal center stage easily. This creativity kit consists of four separate, but integrated, activities.

Story Writer features a word-and-picture processor that mixes typed-in text with colorful icons selected from a library of more than 240 images. Characters display in either large print (on a writing pad that looks like elementary school paper) or in a standard screen size. Once kids compose a tale, they can tell the computer to read it to them simply by picking the mouth icon. The voice may sound robotic, but it reads every picture or word.

Like conventional word processors, KidWorks is as much an editing tool as it is a writing instrument. Children can delete unwanted words or pictures, insert new text and pictures, or move text and images anywhere in a document. Special options let you swap words for icons (or icons for words) automatically, as long as the program has a the appropriate icon or word in its library.

In *Story Illustrator*, youngsters create original pictures for the fiction they write. They can either begin with a blank screen or choose a background from KidWork's collection. Like Kid Pix's, the entire drawing area is always in view.

Story Illustrator works like a conventional paint application, featuring a robust palette of special-effects brushes, line and shape tools, and colorful stamps. There's a tool to type in text, a tool to erase, and a tool to spread any of 16 bright colors. Saved illustrations even shrink to fit a *Story Writer* document. KidWorks links sound with tools, too, though it falls more than a few pixels short of the Kid Pix standard.

Once the KidWorks story and illustrations are complete, kids can select *Story Player* to show their story on screen or generate a printed copy. Adventurous children can work up new icons with the *Icon Maker* module, then transplant them in a written story. The program pronounces these new icons, too, though sometimes with laughable results — fortunately, you can enter the icon's phonetic spelling and teach KidWorks how to talk.

Double Trouble

Kid Pix and KidWorks stuff enough open-ended options into software to keep children hard at play for hours. If you're not strapped for cash, buy both. If you have to pick one, just ask a single question: Which does my child enjoy more — art or storytelling?

Go with Kid Pix if you want a premier children's paint application that dazzles as it entertains. (KidWorks' paint module pales by comparison.) But if you want something beyond art, snap up KidWorks, which makes reading and writing fun.

Kid Pix: Broderbund Software, Inc., 500 Redwood Boulevard, P.O. Box 6121, Novato, CA 94948-6121, (800) 521-6263; 640K IBM PC, Tandy, or compatible; DOS 2.11 or later; EGA, VGA, MCGA, Tandy 16-color; supports PS/1 Sound Option, Sound Blaster, Sound Source sound boards, Tandy sound; requires hard-disk drive; requires mouse; no copy protection; $44.95

KidWorks: Davidson and Associates, 19840 Pioneer Avenue, Torrance, CA 90503, (800) 545-7677; 640K IBM PC, Tandy, or compatible; DOS 3.0 or later; EGA, VGA, MCGA; supports AdLib, Covox Speech Thing, IBM Speech Adapter, IBM ACPA, Sound Blaster sound boards; requires hard-disk drive (2MB free); requires mouse; no copy protection; $49.95

GAMER'S EDGE

By Cynthia E. Field

Bills and junk mail — no fun there. But your next trip to the mailbox could bring a smile to your face if you sign up with Gamer's Edge, a sold-by-subscription series of PC games. Softdisk Publishing, the company that pioneered the concept of monthly software some ten years ago, today boasts an estimated 50,000 subscribers to its various disk services.

Although Softdisk offers subscription software for a wide range of computers — from the PC and

Apple II to the Mac and Commodore 64 — Gamer's Edge concentrates not just on a platform — the PC — but exclusively on entertainment software. Each disk contains an original, professionally designed game for your home PC. No productivity stuff here, or clip art for that matter, just after-hours entertainment for the whole family.

Disk-of-the-Month Club

Similarily to a magazine subscription, Gamer's Edge doesn't give you a choice — you must take what it gives you in any given month. Although that may seem like a potential trouble spot, the sheer variety of games you get from Gamer's Edge helps you forget you didn't pick the title personally.

One month you might receive an arcade challenge such as Xenopods, a game that features metamorphosing aliens and some pretty impressive ballistics. Next month, perhaps Paragon, a pinball-like maze game that pits your bouncing blue ball against zombie spheres, energy cannons, and electrical death arcs. Appropriate sound effects enhance each Gamer's Edge selection.

Kids especially will enjoy games such as Rescue Rover (save your faithful, yet stupid, dog from evil robots) and Keen Dreams, in which Billy gets to grab cookies and cotton candy as he tries to evade rabid veggies — Broccolash and King Boobus Tuber among them — in places such as Spud City and Brussels Sprout Bay.

The most recent Gamer's Edge offering, Catacombs 3, sports a realistic, point-of-view perspective. As you move through a multilevel network of medieval chambers, hallways, and secret passages, the feeling is as much you-are-there as in parts of Sierra's Castle of Dr. Brain.

If there's a single quality that characterizes Gamer's Edge, it's imagination. That's especially evident when you see commonplace games transformed, as in Cyberchess, a fast and merciless electronic spin-off from chess. Cyberchess' color graphics and user interface are astonishing, and the game even supports the mouse. (Most Gamer's Edge games stick with the keyboard and joystick.)

Short and Sweet

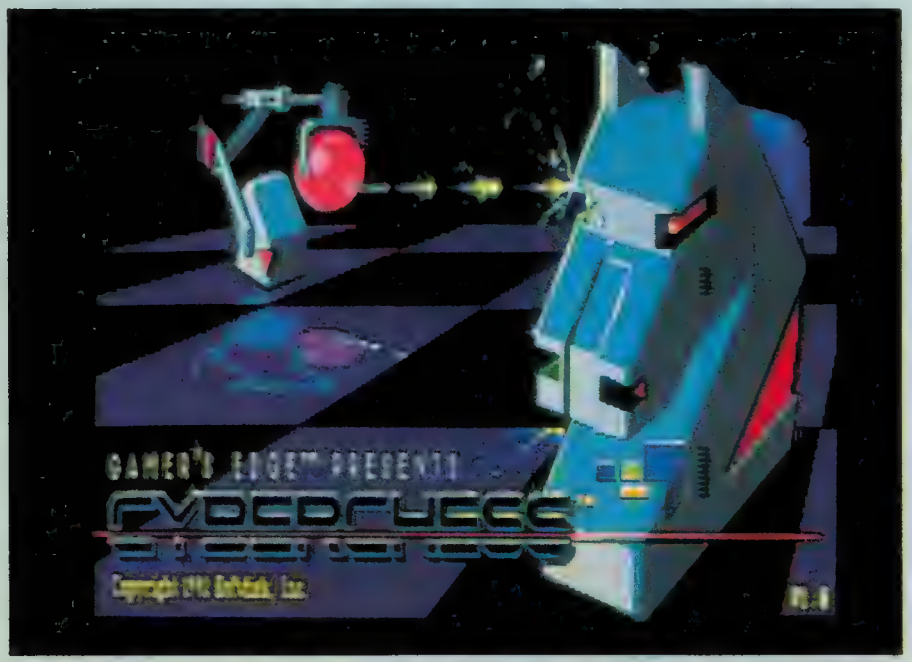
Each month's featured game comes on your choice of 3.5- or 5.25-inch disk. The game's start-up name is printed conveniently on the label, and because none of the Gamer's Edge games is copy protected, you can transfer them easily to your hard-disk drive.

The accompanying documentation, more like a flier than a manual, is pleasantly short. It typically includes a paragraph or two describing the game's scenario, its cast of characters, a how-to-play section explaining commands and controls, and a few hints to get you up and running.

On-line help is always included, too, as are increasingly difficult play levels to keep you from losing your humility or burning up from embarrassment. If you get really stuck, you can call Softdisk's technical support (free, but not toll free). And for the disgruntled, Gamer's Edge comes with a money-back guarantee.

Subscribe to Gamer's Edge and a side effect becomes apparent quickly: You get to try different kinds of games, games you might not otherwise have even considered. Because each game costs only a couple dollars more than a movie ticket (per month prices vary depending on the length of the subscription), you're not risking much, a welcome thought in today's tough times.

But don't let the price fool you. According to Softdisk Publishing, each Gamer's Edge game is developed in house by its own programmers or contracted out to independents who design the game exclusively for the company. No public-domain software here. In fact, each disk carries appropriate, even humorous antipiracy warnings. You won't have to fret about paying shareware fees, either.



Subscribe to Gamer's Edge and a variety of games will be delivered to your door.

Something for Everyone

If variety is the spice of your life, Gamer's Edge is for you. And it's available at a price that even recession-weary consumers can afford. A typical PC game from other companies costs at least five times as much as a single Gamer's Edge disk. Moreover, those other games often require a hard-disk drive or expensive add-on

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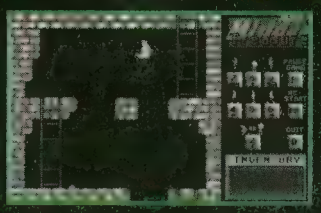

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equipment. Gamer's Edge doesn't.

The flip side, of course, is that Gamer's Edge can't match the sophistication of top-flight PC games such as Ultima VII, Falcon 3.0, or SimEarth. But after all, you do get what you pay for.

Games delivered to your doorstep — what a country!

Softdisk Publishing, P.O. Box 30008, Shreveport, LA 71130-0008, (800) 831-2694; 640K IBM PC, Tandy, or compatible; EGA or better; no copy protection; $29.95 (3 months), $49.95 (6 months), $89.95 (1 year)

THE SIERRA NETWORK START-UP KIT

By Wayne Kawamoto

A brawny cowboy named Marion? The world's most famous man among men, star of such classics as *The Searchers*, winner of an Academy Award? Sure.

Marion Morrison chose the stage name John Wayne, and it's easy to see why. In the same vein (or is it vain?), you can take a new name, even take a new face, as you immerse yourself in the cyberspace of The Sierra Network's (TSN) computerized world of games and make-believe.

The Sierra Network Start Up Kit is your entrance into this innovative, games-only on-line service. TSN may still be in its early stages, but if its current, but limited contents are a sample of what's to come, it should prove to be a success.

Your Constant Cyberspace Companion

TSN's Constant Companion — the title it gives to its current entertainment offerings — puts bridge, checkers, chess, backgammon, cribbage, hearts, and miniature golf at your disposal night and day, weekdays and weekends. You don't have to hunt for a game-playing opponent when you have Constant Companion and a modem; real people at the other end of the telephone line are just waiting to take you on. Sure beats playing the computer.

If you're familiar with Sierra's Hoyle games, you have a good idea of what to expect from Constant Companion. The games sport excellent graphics, the kind you expect from Sierra, and their interfaces are easy to use and to play. As an added enticement, Sierra is promising several new major attractions in the near future, including multiplayer versions of such Sierra/Dynamix classics as Stellar 7 and Red Baron.

Sierra knows the reason such games are so popular. An evening spent playing board or card games with friends is entertaining not only because of the competition, but because of the social interaction, too. Constant Companion takes that into account by letting you chat with people while you play.

Almost as intriguing is Sierra's promotion of TSN as a precursor to cyberspace, an electronically created environment you can enter and experience in a way not possible in reality. While on TSN, for instance, you name and create an alter ego — and that persona may not have any connection to the real you — through which you experience the network and interact with other players.

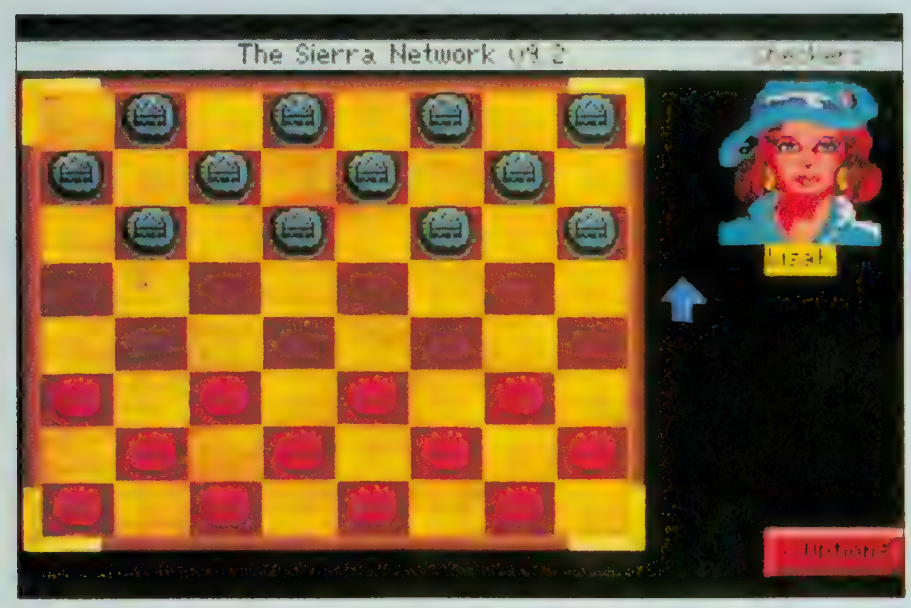
Creating your character is fun. You concoct an image of yourself with tools even the best Beverly Hills plastic surgeon couldn't match. Pick this chin, that nose, this hat; the possibilities are endless. On TSN, beauty is only pixels deep.

Log On

TSN's proprietary communications software is easy to install. (You can't connect with TSN with a traditional communications program, as you can when you go on line with CompuServe or GEnie.) Most users will be up and running in minutes. After logging on, you head to the waiting room, where you can see who's on the network, find out a little about them, and see what they're doing. Click on names to see portraits — if you see an eyeball, someone is checking you out.

To play, just invite a friend to vie with you in a game. While you're playing, you see your opponent's mug shot. But unlike in the Hoyle games, these pictures represent real people, not fictional characters. Meanwhile, your opponent watches your make-believe face.

TSN features a bulletin board on



The Sierra Network brings some new twists to on-line gaming.

which you can leave personal messages, discuss general topics, offer opinions, and receive Sierra game hints. Electronic mail for semi-private messages is also available, and uses a particularly friendly interface. You even get to select an envelope and stamp.

Better Than an E Ticket

The current selection of board and card games may not overwhelm you, but they're certainly par for these kinds of games. Miniature golf is particularly whimsical. And though the game selection is small now, Sierra promises more attractions — something it calls cyberspace theme parks — in the near future. Think of them as computerized versions of the lands at Disneyland — Frontier Land, Fantasy Land — and you get the idea. The two under construction are Sierraland for youngsters and Larryland for adults.

Some of the projected attractions for these theme-park-like parts of TSN include bumper boats in which players ride through a raging river, an electronic chalkboard on which kids work together on their homework, a sculpture garden, a paintball area, a chat hot-spot called the Hard Disk Café, and a television station.

Wilco's Arcade will feature a game called Astro Chicken, but the most eagerly awaited additions are easily the on-line versions of Stellar 7 and Red Baron. The former, a futuristic tank-battle game, and the latter, a World War I flight simulator, come from Dynamix, part of the Sierra development family. Both were excellent in the original format, and the idea of on-line, multiplayer versions is exciting. Players will be able to team up to fight organized battles or start a free-for-all — last one alive wins.

Self-Starter

Only recently has Sierra put a TSN Start-Up Kit on software-store shelves. Included in the Kit are the communications software and $25 worth of on-line credit.

On-line rates — yes, you have to pay for your fun — are $7 per hour during prime time (6:00 a.m. to 6:00 p.m., Monday through Friday) and $2 per hour during nonprime time (6:00 p.m. to 6:00 a.m. weekdays, and all day on weekends), with a monthly minimum of $4.95. But because the Start-Up Kit gives you 12 hours of nonprime-time access, you'll have enough time to see if you like it before the meter really starts ticking.

For now, TSN is limited in content. What is available looks good. It's the promise of things to come and the knowledge that Sierra usually delivers that should set your mouth watering.

Sierra was among the first to adapt 256-color graphics, support sound boards, and move into CD-ROM. Now Sierra's breaking new ground in telecommunications. What better excuse to fire up the modem and light up the telephone lines?

Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; 640K IBM PC, Tandy, or compatible (80286 or faster); EGA, VGA; supports AdLib, Thunder Board, Roland, Sound Blaster sound boards; requires hard-disk drive; requires 1200-baud or 2400-baud Hayes-compatible modem; mouse recommended; $29.95

MICROSOFT ENTERTAINMENT PACKS VOLUMES TWO AND THREE

By Richard Sheffield

Microsoft Corporation knows a good idea when it sees one. Windows 3.0, DOS upgrades *ad infinitum*, multimedia, and applications spread across millions of PCs and Macintoshes are proof enough.

Microsoft's first Entertainment Pack for Windows was another in that litany. That loose collection of Windows games, puzzles, and screen savers became an instant best-seller, a must-have for anybody and everybody. If it worked once, why not try it again — and again?

That's exactly what Microsoft Corporation has done by introducing two new volumes of Windows games and frivolous entertainment. As in that first set, don't look for large, complicated programs here. You can learn everything in minutes by reading the on-line help.

Game play is light and fast-paced — perfect for the mental-health breaks we all need from time to time, whether at home or in the office.

Pack Two

Pipe Dream, the anchor of the Microsoft Entertainment Pack Volume Two, compares nicely to the DOS game of the same name, originally distributed by LucasFilm. You play a fast-working pipe layer trying to stay ahead of oozing goo. The trick is that you have to place pieces of pipe as they're handed to you, and they can't be turned for a better fit. As expected, this is a fun and easy game, but it lacks the original's sense of urgency. (In the original the goo was raw sewage, not a new drain cleaner.)

In keeping with the if-it-works-once-do-it-again philosophy, Free Cell and Tut's Tomb are two new intriguing solitaire variations. Free Cell literally puts all the cards on the table for you to see at the beginning of the game. But you can move them around only one at a time, or in groups of five or fewer, depending on how may free cells are open. In theory, you should be able to win every time, but in practice things are quite different. Tut's Tomb is old pyramid solitaire, in which you can remove only lucky matches that add up to 13.

Jigsawed is a bone for those who prefer puzzles to games. Give it any graphic in .BMP format and the picture's broken into pieces for you to put back together. You can even alter the shapes of the pieces for a

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new challenge. Jigsawed comes with five .BMP samples, enough to get you started.

Mousing Around

The tide finally turns in the age-old cat-and-mouse conflict in Rodent's Revenge. In this small-scale arcade/action game, you control the mouse trying to trap a pack of furtive felines in one-by-one cells. Once trapped, they turn into chunks of cheese.

Stones, a combination of strategy and luck, is a sure winner for fans of mah-jongg and tai-pei. You must match two of a stone's attributes to place it on the board, but placing all 90 stones demands a good deal of long-range planning.

The weakest game of the bunch is Rattler Race. Guiding your snake around to eat the apples (snakes eating apples?) is awkward and frustrating, because there seems little you can do to avoid the killer bouncing balls. Avoiding garden hoes or car tires would have been a little more imaginative.

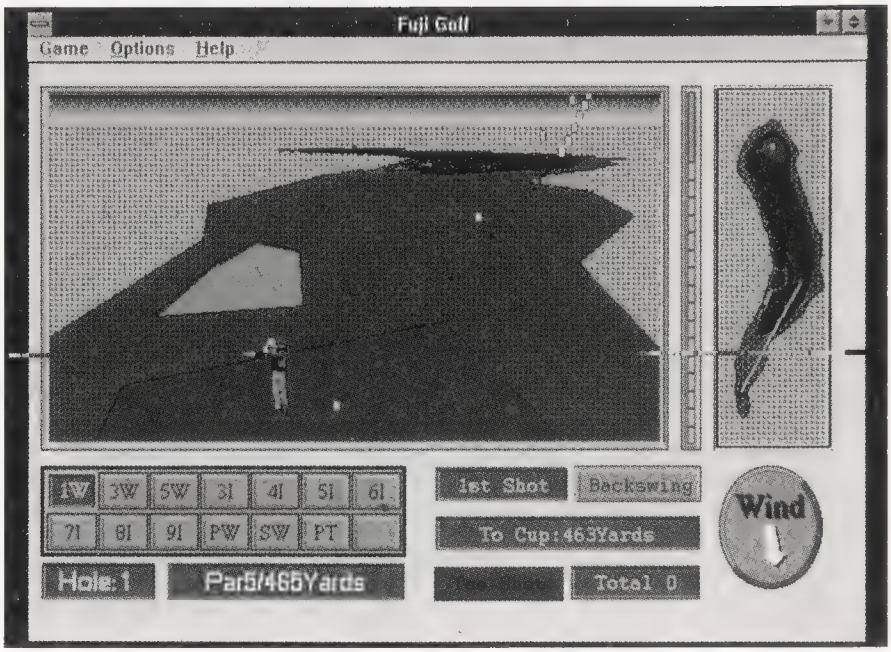
Lump these games with six screen savers and you've got a great value. Volume Two is every bit as solid and entertaining as the original.

Pack Three

Fuji Golf plays centerpiece in Microsoft Entertainment Pack Volume Three. Although it's good enough to be part of a collection, Fuji Golf could never stand on its own. (It doesn't compare to the other lead games, Tetris and Pipe Dream.) It's not nearly as flashy as a stand-alone golf game, but it doesn't cost as much, either. Familiar game play — at least to anyone who's played an electronic round or two — contrasts with difficult putting to make an uneven game.

Take a Gamble

Tri-Peaks is the mandatory solitaire game in the pack, and a good one at that. You climb up the three mountains of cards by removing cards that are one value higher or lower than the top card in the stack. Because scores are kept by money won or lost, not abstract points, you can gamble vicariously in Windows.



Fuji Golf is the main attraction in Microsoft Entertainment Pack Volume Three.

If logic puzzles are more your speed, Volume Three gives you two good ones. TetraVex challenges you to complete a grid by placing pieces with matching sides, while Klotski has you freeing trapped blocks. Both are graphically appealing and mentally challenging.

What's the Word?

WordZap is my personal favorite for killing a few minutes. You play this word game against the computer or with someone else via direct link. The idea is to make seven words out of eight letters. Because a game lasts only about a minute, WordZap is perfect for a quick break.

LifeGenesis is a simple simulation that's similar to the classic game Life. Although it's interesting to watch when the computer plays itself, it's tedious as a game.

SkiFree is as clever a time waster as you'll see. As the name implies, this skiing simulation is so simple you can simply figure it out as you go. Whether flying through a free-style routine or tripping through the trees, there are hilarious surprises around every bend.

As with the first two volumes, this pack includes several entertaining screen savers that certainly won't disappoint you.

It Keeps Getting Better Each Time

Coming so close on the heels of the second volume, you might expect a weak Volume Three. But that's not true. Even with its so-so golf game, Volume Three is even more entertaining than its predecessor. You won't like everything, but you're bound to be addicted to at least one or two in the collection.

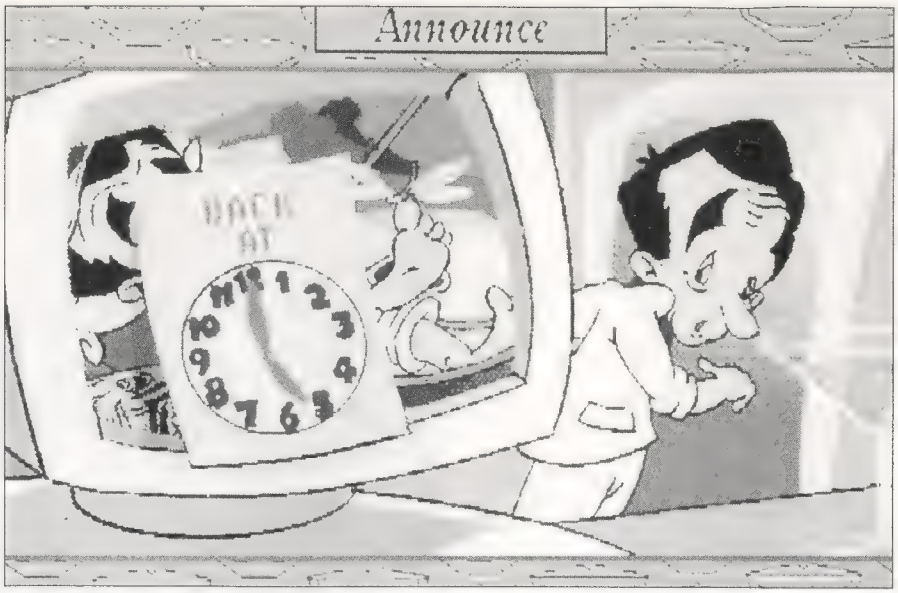
The truth is, at a discounted price of less than $30, you can't go wrong with either of these Windows packs.

Microsoft Corporation, One Microsoft Way, Redmond, WA 98052-6399; (800) 426-9400; 1MB IBM PC, Tandy, or compatible, 80286 or faster; DOS 3.1 or later; Microsoft Windows 3.0 or later; Hercules, EGA, VGA; requires one 1.2MB high-density disk drive and hard-disk drive; Microsoft or compatible mouse; $39.95 each

THE LAFFER UTILITIES

By Eric Grevstad

Attention, all bored office workers, shirkers, goof-offs, and gossips! Tired of hanging around the water cooler, copy machine, or fax? Want to waste time and 6 megabytes of hard-disk space? Addicted to the Leisure Suit Larry adventures not because of their puzzles or jokes, but simply because you fall into fits of laughter whenever you see cartoons of the white-suited, toupée-topped hero, Larry Laffer? Step right up — Sierra's got a program for you.



Boost office morale and destroy business productivity with The Laffer Utilities.

It's for Real

The Laffer Utilities may sound like a spoof of the popular techie toolkit The Norton Utilities (Laffer is even labeled with Version 4.01 in homage to Microsoft's funniest edition of MS-DOS), but except for a humorous, bogus contents page in the manual, it has nothing to do with disk or file management. Too bad, really — a Norton parody could be an outrageous, if rather specialized, piece of software. Instead, The Laffer Utilities promotes a new PC term: *inefficient time management*.

This package includes 18 small programs festooned with colorful on-screen cartoons of the unlovely Larry, with a few cameo appearances by his voluptuous pal, Passionate Patti. Run from the mouse- or keyboard-controlled main menu, or individually from the DOS command line, they provide a dozen and a half ways to fool around, boost office morale, and destroy business productivity. A few are fun, several are slightly useful, and the rest range from trivial to downright stupid.

Advice to the Luckless

One of the stupid entries, called What to Do, turns your high-powered PC into an equivalent of the old Magic 8-Ball fortune-teller toy: You type a question, and Larry gives a sage reply such as "Ask again next month," "Prepare for disappointment," or "Head for the mountains." If you find Larry a wise adviser, you can even entrust your fortune to him — another utility provides random lottery numbers.

The Excuses utility supplies all-purpose excuses to bosses' inquiries — "My hard disk crashed," "I come from a dysfunctional family," and, yes, "The dog ate it." Other programs offer fake horoscopes and wise sayings, mixing a few original gems ("The road of good intentions is paved with hell") with quotations from philosophers such as Churchill, Mencken, and, of course, Brooke Shields.

One of the funniest utilities, Headline, mixes a handful of nouns and verbs randomly to generate blurbs suitable for supermarket tabloids: "Loch Ness Monster Marries Organ Donors" or "Elvis Clones Spawn Madonna." The program occasionally steals names from the Utilities' phone database, so you may find yourself in a headline such as "Pregnant John Doe Enslaves Hookers."

The database is a simple card file that lets you store and search for fellow workers by name, title, department, phone and fax number, and birthday. If you're diligent and keep up with your colleagues' birth dates, a Birthday utility reminds you of upcoming cake-and-candle events during the next week, month, or any period you specify.

Two utilities fit the category of computer toys. One lets you play a variety of sound effects. (The ringing phone might help you get another caller off the line, but it's hard to come up with a time when you'll use the chirping bird or arcade-game noises.) The other announces your whereabouts — via on-screen cartoons — when you're away from your desk. They show the inevitable Larry in a meeting, at the water cooler, in the boss' or doctor's office, or (for the really tasteful) on the toilet, while the brief message you entered scrolls across the screen.

Laughs, Lunches, Faxes

If coworkers find your conversation dull, check out the centerpiece of The Laffer Utilities — a database of Leisure Suit Larry creator Al Lowe's 500-plus favorite jokes, rated for their humor and decency content on the Laff-o-Meter and Filth-o-Meter gauges. You can add your own jokes, customize the database with insulting replacements for generic terms such as *Ethnic*

Group 3 or *Male Homosexual*, and adjust the gauges to exclude gags that top the Filth-o-Meter. Even so, beware: A lot, in fact most, of the jokes are offensive. A surprising number involve sheep.

A clean version of the database lets you create entries for area restaurants, rate their taste and price on the Qual-o-Meter and Buck-o-Meter, poll your friends, and push a few buttons to answer the question "Where do you want to go for lunch?" If you actually take the time to use it, here's just one suggestion: Get a life.

The remaining half-dozen utilities partly justify the package's $35 price. They use a printer (LaserJet, PostScript, Epson, or IBM supported) to produce customized signs, sign-up sheets, bracket and betting-pool sheets for sports fans, forms, and fax cover sheets.

You can mix the messages with a variety of borders, clip art, and templates ranging from mundane *While You Were Out* memos to playful *Do I Look Like Your Secretary?* and *More Stuff You Won't Get Done Today* forms and faxes. The forms and signs are cute, if you go easy on the clip art. (Larry's everywhere.)

Hard-Working Fun

Just as cute is the idea of a software package that acknowledges that half of our nine-to-five office life is dedicated to chitchat, silly memos, and funny sayings taped to cubicle walls. As Hollywood might say, it's a high-concept idea.

High concept, but low humor. Because some of these 18 laugher utilities actually make goofing off less fun than doing work, only the most rabid Larry fan, or the most sophomoric corporate clown, will love The Laffer Utilities.

Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654; 640K IBM PC, Tandy, or compatible; EGA, VGA; requires hard-disk drive; mouse and printer recommended; no copy protection; $34.95

VIRTUAL REALITY STUDIO

By Wayne Kawamoto

You're about to enter another dimension of sight and sound. No, the next stop isn't the black-and-white TV world of *The Twilight Zone*, but it *is* an alternate universe.

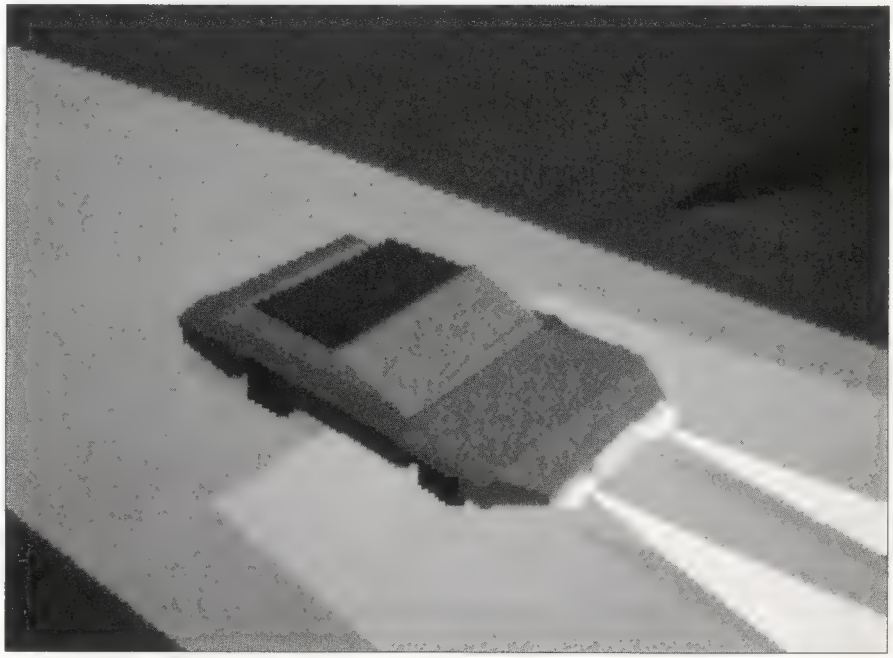
Updating the idea of substitute environments, Domark's innovative Virtual Reality Studio is a virtual toolbox that lets you create interactive three-dimensional polygon-fill worlds on your computer.

You can mimic known places or dream up entirely new ones in 3D graphics. The results are impressive landscapes similar to those you've seen in games such as Continuum, Space Station Oblivion, and some of the older flight simulators. Picture moving through the polygon-fill worlds of these games, and you have a good idea of what you can do with Virtual Reality Studio. The program is entertaining and intriguing, but it demands patience and sports a substantial learning curve.

You create objects from various two- and three-dimensional geometric shapes, which you can move, shrink, stretch, and combine into almost anything. These objects and structures can get complex, because they often consist of a variety of individual elements. To build a simple house, for instance, you might use a cube for the house itself, a pyramid for the roof, and a rectangle for the door. The number of objects you use is limited only by your computer's memory.

Once you create a structure, through the magic of camera angles and perspective, you can pretend to walk around and under it, and view it from any vantage point. Virtual Reality Studio maintains the proper perspectives flawlessly throughout a range of viewing angles.

When you're satisfied with your new world, you can make it interactive with Virtual Reality Studio's *Freescape* programming language. By defining conditions, essentially IF statements, you can trigger shapes to disappear, link areas, and alter variables. This means the programming language lets you create basic adventure games consisting of a series of events leading to a goal. Through this programming code you connect different areas. One area may feature a house with a door, for example. Link the door to another area that represents the interior of a home, and you've



Virtual Reality Studio lets you create interactive 3D worlds.

simulated walking into the house.

Other variables keep track of objects a player finds, energy he or she has left, ammo he or she has fired, or anything you want. These variables keep a running score of how well the player is doing. Certain events trigger changes in the variables.

The programming language is fairly comprehensive with its own versions of loops and logical AND, OR, and IF statements. If you have even a minimal amount of programming experience — BASIC may be the best help — you'll feel at ease here. If you cringe at the thought of programming, though, you may find Freescape tough going. Keep in mind that you don't have to program in Freescape to use Virtual Reality Studio — it's necessary only for the more-advanced interactive features.

Drafting and Docs

Virtual Reality Studio's interface is a blend of draw, CAD (computer-aided design), and compiler programs. You'll find elements of Drafting 101 in this package, but overall, the interface is easy to use and intuitive.

This application supports CGA, EGA, and VGA, and uses the AdLib board for simple sound effects such as firing weapons or running into walls. The entire program fits on one 3.5-inch disk, and takes only about 700K of hard-disk-drive space.

It's unfortunate, though, that the documentation lacks adequate examples and emphasizes programming at the expense of the basics. (The programming section reads like a staid DOS reference guide.) The package sorely needs a tutorial to step you through the object-creation and programming processes. Novice users or nonprogrammers won't fathom the program's commands and logic from the sparse and inadequate examples. In fact, the manual covers the Amiga and the PC versions of Virtual Reality Studio, and intermixes directions for the machines throughout. It's confusing, to say the least.

Other elements of Virtual Reality Studio fail to meet the mark, too. It's too easy to manipulate the wrong element while creating a structure — a moderately complex object can easily consist of 15 or more individual components. Also, Virtual Reality Studio could improve the way it tracks and identifies objects. Your control over the move, stretch, and shrink tools isn't responsive, either. And it's difficult to align shapes that overshoot their desired positions constantly. With enough tenacity, though, you can get the program to do what you want.

All Work and Some Play

Virtual Reality Studio's capabilities are impressive, and the power that it gives you to create 3D worlds is exciting. The creative aspects are unlimited, and it can be fun to build games for friends, or to just experiment. But as with most worthwhile endeavors, the creation of these three-dimensional worlds is exacting and meticulous work.

If you have some programming experience, you can do a lot with this software and achieve results just a notch below games such as Epyx's Space Station Oblivion. Once you create your worlds, Virtual Reality Studio gives you the means to distribute them to people who don't own the program. Unfortunately, the run-time version has an extremely confusing command set that's certain to frustrate your friends.

Although Virtual Reality Studio shows some severe flaws, you can work with it. For some, the ends may justify the means (and the difficulties).

In other words, as Rod Serling might say, consider Virtual Reality Studio as "submitted for your approval."

Domark, 550 South Winchester Boulevard, Suite 200, CA 95128, (800) 245-7744; 640K IBM PC, Tandy, or compatible; CGA, EGA, VGA, Tandy 16-color; supports AdLib sound board; supports joystick and mouse; $89.95

STAR TREK: 25TH ANNIVERSARY

By Bernie Yee

Star Trek will never die. No, that's not just some Trekkie's idle wish. Just take a look at all the *Star Trek* paperbacks at the bookstore, the stacks of taped episodes at your local video-rental store, and — best of all — the many *Star Trek* games in the history of computing.

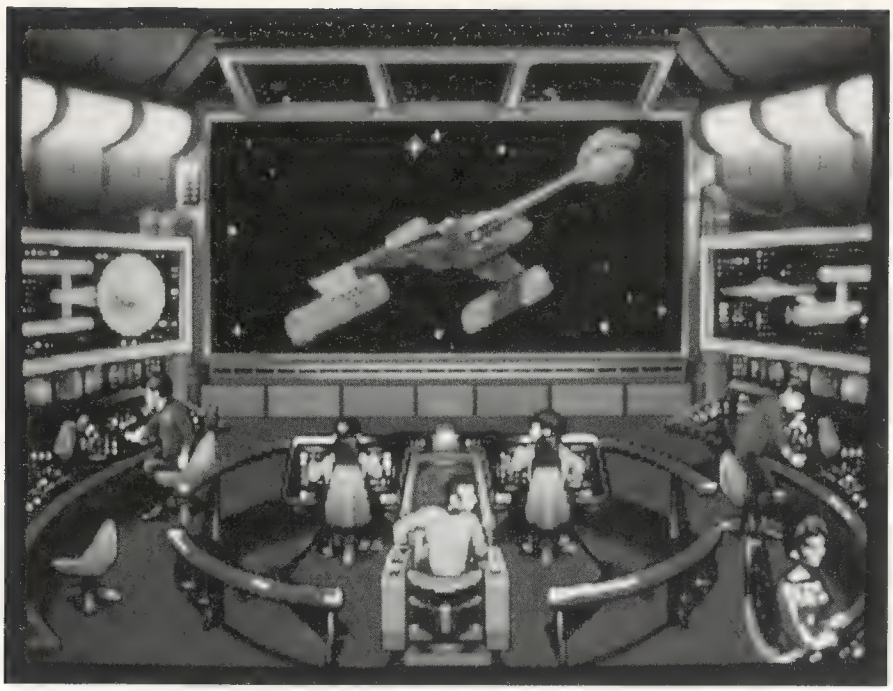
From the all-text version that people played on huge mainframes in the 1970s to recent Paramount-licensed PC games, *Star Trek* has materialized in more than one form over the years. But even though *Star Trek* entertainment software represents a classic theme of computer gaming, it has never really captured the feel of the series. That's a shame. After all, along with *Star Wars*, *Star Trek* is the spiritual (if not actual) ancestor of almost all science-fiction games.

This history makes the new Interplay release of Star Trek: 25th Anniversary all the more special. Not only does the game take place on board the U.S.S. *Enterprise* under the command of James T. Kirk, but it begins with a bit-mapped starship reprising its famous intro flight sequence while your speakers play the original *Star Trek* theme. When the familiar words appear at the bottom of the screen ("Space . . . the final frontier . . . .") every fan will grin in delight.

Interplay doesn't let *Trek* buffs down. The company has come through with its best game since Wasteland. PC gamers finally have a *Star Trek* game worth its salt.

Set Phasors to Kill

A good way to describe Star Trek: 25th Anniversary is "Wing Commander meets Sierra." There's no getting around the fact that the game's 3D bit-mapped starships and



25th Anniversary's graphics and action will delight any Trekkie.

battle cruisers use a Wing Commander-esque technology.

Actually, Star Trek goes one better. Not only does the animation seem smoother, but the sight of an oncoming Klingon battle cruiser evokes more emotion (usually fear) than any Johnny-come-lately Kilrathi menace.

The Crew

Star Trek opens with Kirk and the cast — Scotty, Sulu, Spock, McCoy, Chekov, and Uhuru — on the bridge as the ship gets ready to simulate battle with the U.S.S. *Republic*. (Remember the M-5 episode?) Here you learn to raise shields, arm weapons, and begin damage control, all while using your joystick to maneuver the *Enterprise* in real-time, Wing Commander-style combat. All interfaces, shipboard and planetside, are based on a point-and-click system that's simple to learn and easy to use.

You get to tangle eventually with Romulan birds of prey, Klingon battle cruisers, and Elasi pirates. Even if combat is a bit simplistic, watching the Klingon and Romulan ships maneuver is bound to bring a wave of welcome nostalgia to any *Trek* fan. Some purists may bemoan the arcade style of Star Trek: 25th Anniversary's combat, but it's actually quite enjoyable, and considerably simpler than Wing Commander's. Animation is smooth and realistic.

After you've completed the combat, you'll get a message from Starfleet Command telling you to stop playing around and to plot a course to Pollux V, where you'll have your first mission.

Transporters Are (Sierra) On-Line, Captain

After warping into the system and giving Sulu orders to enter standard orbit, your landing party beams down to the planet to investigate strange happenings. (Does this sound familiar, or what?) Movement and action are controlled by a point-and-click interface that feels like a variant of Sierra's own icon-and-mouse navigator. It's quite flexible, and lets you use objects (phasors, tricorders, or medical kits) and the skills of landing-party members on animate and inanimate objects.

Interplay has gone to great lengths to make sure that the earliest missions are easy enough to let you get comfortable with the game's environment. As in all adventures, you have to examine everything, but you also need to remember that each crew member has particular skills. The planet sequences capture the spirit of the series well, because *Star Trek* wasn't as much about space combat as exploration and interaction.

The Prime Directive

By focusing on classic adventure-type puzzle solving, Interplay stays true to the *Star Trek* spirit. Do I have any complaints? Space combat is a bit simplistic, but it works nonetheless. And though I'm not sure of the licensing ramifications, I wish Star Trek: 25th Anniversary had included digitized voices of the ship's crew. That's not an unrealistic expectation of Interplay, the company that was one of the first to release an MPC (multimedia personal computer) game on CD (BattleChess). Shatner's voice during the introduction would have been perfect.

Interplay is notoriously slack about creating sequels — witness the lack of follow-up to great games such as Dragon Wars and Wasteland. And if any game deserves a sequel, it's Star Trek: 25th Anniversary.

In fact, rumor has it that Interplay is working on a sequel, but from a different approach. Let's see, if we slingshot around the sun at maximum speed, we can enter a time warp and maybe we'll be able to come out around the time when Interplay releases the sequel.

Then again, with release delays rampant in the game business, even Mr. Spock couldn't guess when the next version will ship. That's okay, though, because Star Trek: 25th Anniversary will keep you happy for many, many star dates to come.

Interplay Productions, Inc., 3710 South Susan, Suite 100, Santa Ana, CA 92704, (800) 969-4263; 640K IBM PC, Tandy, or compatible; VGA; supports AdLib, Sound Blaster sound boards; $59.95

NCAA BASKETBALL: ROAD TO THE FINAL FOUR

By Jordan Gold

College hoops are tops this time of year. No other collegiate sporting event raises more alumni hopes, generates more behind-the-bench heckling, or captures a bigger audience in front of the tube than the NCAA Division I championship basketball tournament.

NCAA Basketball: Road to the Final Four is an ambitious attempt to recapture that frenzied race for the national title. With excellent graphics images, more than a hundred thousand frames of animation, and a full complement of on-court sounds — grunts included — this game does a great job of simulating college basketball.

Highlights at Eleven

Road to the Final Four includes accurate statistics for the 64 teams that played in 1991's tournament. Every player on every team is rated in a variety of categories, from durability and defense to shooting skill and speed.

You can play, coach, or simply watch the games as they unfold. Want to just kick back and veg out in front of the computer? A fast simulation mode runs through a game in five minutes or so. Or you can zip through an entire round in a matter of seconds by pressing a key — all you'll see is each game's final score as the computer advances the winner to the next round.

The Real Action

For more in-your-face action, you can put sneaker to wood and pass, shoot, and steal the ball. You can also position players and move across court as if you were on the floor yourself. As coach, you can choose from eight defensive sets (including four zones and a late-game immediate-foul defense) and eight offensive plays (from pick-and-roll to give-and-go). You can switch defensive or offensive plays at any time, and — in a nice touch — if a play doesn't work, the computer bails you out by taking the open shots.

An excellent ten-camera auto-cam feature displays the game just as if you were watching TV at home in your favorite chair, with beer and chips in hand. You can even adjust the views, freeze the action, or call up an instant replay.

But while the computer simulations are realistic, they don't give you the same winners every time. The best teams in last year's tournament — favored UNLV and the eventual winner, Duke — didn't even make the Final Four in any of five simulated tournaments.

Instead, underdogs fared better than in reality. One simulated Final Four, for example, featured Arizona (a third-round loser to Seton Hall in real life), LSU (a first-round loser to Connecticut), Temple (a fourth-round loser to North Carolina) and Arkansas (a fourth-round loser to Kansas). Temple beat Arizona in overtime in the final.

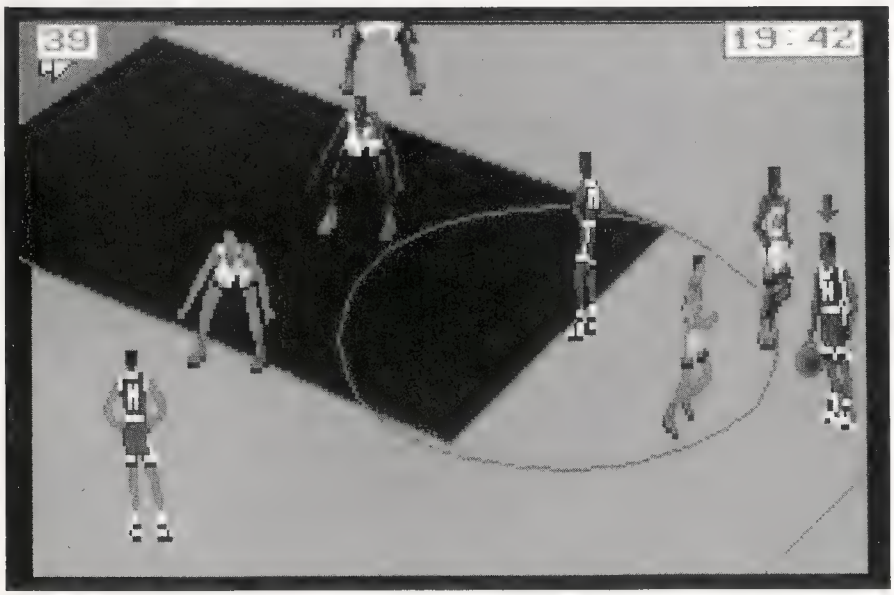
Although it may not mimic real life, Road to the Final Four is still an excellent simulation of college basketball, no surprise considering its genesis — it was written in part by some of the creators of Earl Weaver Baseball. Animation is a knockout, with turnaround slam dunks, perfect jump shots, swishes and backboard shots, steals, and turnovers offering exciting visuals to keep you at the screen and keyboard.

You Make the Call

Not only does Road to the Final Four let you replay the 1991 tournament, but with some effort you can mess with reality a bit and change the way things *were*. It's easy to reseed the 64-team tournament, for instance, to give a weak team a better shot at reaching the final.

More involved are the changes you can make in individual player statistics. Do you want to make Montana's team a five-man free-throw shooting machine? Go ahead — it's your call. You can alter a team's playbook by deleting or adding other plays from Road to the Final Four's list, changing the way even the worst teams do business.

Road to the Final Four wanders away from the real world all by itself at times. Teams shoot better in the game than in real life; it's quite common for teams to shoot 60 percent or higher from the field here, while almost



NCAA Basketball: Road to the Final Four — an excellent sim of the college game.

any coach would kill for a consistent 50-percent accuracy on shots from the field.

As a result, Road to the Final Four shows fewer missed shots, fewer rebounds, and somewhat higher scores than a real-world game. More troubling is the game's misuse of the 45-second shot clock. In basketball, the 45-second clock resets only when a shot hits the backboard or the rim. Here, though, it resets whenever a ball is shot, whether it hits the basket or is a wimpy airball, or when a team calls time out.

The Wrong Numbers

Even the game's player stats are untrustworthy. Kept in a number of categories, from field goals and three-point goals to blocked shots and minutes played, the statistics are often inaccurate. Road to the Final Four has a tendency to award rebounds to players who aren't in the game, and to either not count missed shots or to not include shots made in a statistical category. In one instance, a player's stats claimed he made seven out of five shots (a nice trick if you can pull it off), while another player was zero for one for two points.

The 124-page manual is informative and well organized. It does a good job of explaining basketball terminology, with 40 pages of rules, a court diagram, and three pages of officials' signals. It also provides clear instructions for playing the game.

It's a Winner

Minus the play and stats problems, Road to the Final Four is a compelling simulation of college sport's premier event. Now the only question is: When can we replay *this* year's Final Four?

Bethesda Softworks, 15235 Shady Grove Road, Suite 100, Rockville, MD 20850; (301) 926-8300; 640K IBM PC, Tandy, or compatible (286-based system minimum); EGA, VGA; supports AdLib, Sound Blaster sound boards; requires hard-disk drive; joystick optional; $59.95

BO JACKSON BASEBALL

By Dan Muse

You already know that Bo knows football, baseball, and — if you've seen his Nike commercial — surfing, polo, hockey, and just about every other sport imaginable. And, if you're a T-shirt aficionado, you may have even read that Bo knows your sister. But as any PC game player knows, just because a game is endorsed by a superstar, it doesn't mean the game itself is a winner.

While Bo Jackson Baseball may not dominate its competitors the way the athlete dominates his sports, its smooth animation, attractive graphics images, and general playability combine to produce a formidable contender. In fact, Bo Jackson Baseball implements some unique and effective arcade elements.

A Game or a Season

You can play either a single exhibition game or an entire league schedule. If you're strictly an arcade kind of player, you may never venture beyond exhibition games. If you enjoy the strategy of building and managing your own team and playing a league schedule, however, Bo Jackson Baseball won't disappoint you — although it won't make you forget Earl Weaver Baseball II, either.

Bo Jackson Baseball approaches the game in a unique fashion. Perhaps the biggest difference between Bo and other games in this genre is the pitching. You view the action from behind the catcher. To select your target — inside, outside, or somewhere in between — watch the baseball as it moves horizontally behind home plate.

If you want your pitch to paint the outside corner, for example, select your pitch when the ball is on the corner. It's fairly easy to control your pitches in the early innings. As the innings progress and your pitcher tires, however, the ball begins to move more quickly from left to right, making it more difficult to get your pitch exactly where you want it.

Take Your Pitches

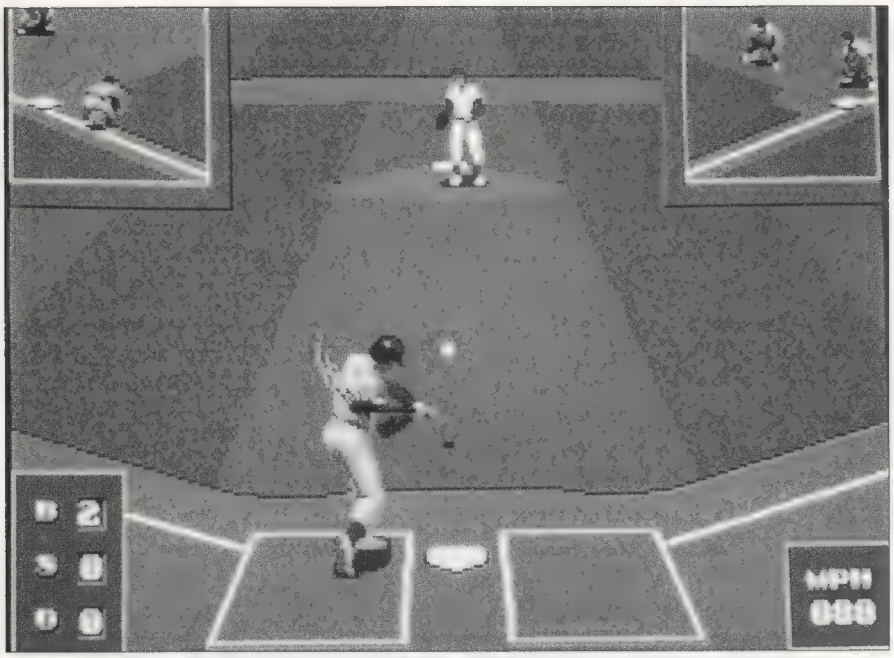
Unlike other baseball games, Bo Jackson doesn't let you actually select specific types of pitches — curveballs, sinkers, screwballs, sliders, and so on. You can select three speeds — fastball, normal, and change-up (or slow). You can throw breaking balls, though, by moving the joystick (or using the keyboard equivalents). After the ball leaves your pitcher's hand, move the joystick in the direction in which you want the ball to break. Using the slowest speed, you can throw some pretty amazing — even improbable — breaking stuff. That is, you can throw a pitch that breaks left, then right, then left again.

As your pitcher grows more tired, he loses some of the snap on his breaking balls. He also loses velocity on his fastball. In fact, this drop is particularly precipitous. A small box in the lower right-hand corner of the screen measures the speed of your pitches. You'll notice that your fastball will drop quickly from, say, 95 mph in the first inning to around 85 mph in about the third inning.

The secret is to use a lot of change-ups and medium-speed pitches to set up the fastball. Just as in real baseball, a good off-speed pitch or breaking ball is just as effective as a fastball — unless you're Nolan Ryan or Roger Clemens.

Getting Defensive

Playing defense is pretty straightforward. Judging fly balls and fielding grounders doesn't take long to master. In fact, some game purists — not me — might consider this method of fielding cheating. A flashing white dot shows you where the ball will land, so it's relatively easy to move your player to the right spot. Bo Jackson Baseball also uses digitized voice effectively, indicating how



Bo Jackson Baseball: a fun game that boasts superb graphics and animation.

the ball is hit — pop up, ground ball, line drive, or fly ball. After you hear the voice exclaim "grounder," for example, you know it's safe to have the player charge the ball. In general, playing defense is challenging, but not overly difficult.

One frustrating thing about playing defense is that when a line drive clears the infield, you can't see your outfielders. On line drives over second base, for example, you can't tell if the centerfielder or the rightfielder is flashing. You want to move to cut off the ball, but because there's a couple of seconds before the view switches to the outfield, you're pretty much frozen. You can try to guess, but if you move the joystick thinking the centerfield is active and it ends up being the rightfielder, your guy will be actually running away from the ball.

This is a problem only with line drives, however. For fly balls, the view shifts immediately to the outfield. To be fair, you do have a small overview of the field in the lower right-hand corner, which theoretically shows you which fielder is active and where the ball is headed. After many hours of playing Bo Jackson Baseball, I still couldn't force myself to switch my concentration to the smaller screen — my eyes tended to follow the ball. By the time my brain kicked in and told me to watch the overview screen, it was too late. It would have been more effective to have the view on the main screen switch automatically to outfield on line drives hit over the infield.

As in the real thing, in Bo Jackson Baseball positioning is key. If you want your outfielder to shift to allow for a pull hitter, or if you want the infield drawn in to cut off a runner at home, you can do so with the *Manager's Option Screen*. You also use the *Manager's Option Screen* to make situational substitution — relief pitchers, pinch hitters and runners, and so on.

The Art of Hitting

Many sports experts say that the single most difficult thing to do in all of sports is to hit a baseball. After a few at-bats in Bo Jackson Baseball, you may want to genuflect in front of portraits of Ted Williams. As tough as it is to master hitting, though, you have to admire the fluid, realistic animation of the batter and pitcher in Bo Jackson Baseball. You'll even notice that hitters with higher averages have better bat speed than lesser hitters.

As in real baseball, the best way to hit is to pick up the ball when it's in the pitcher's hand and watch it all the way to bat — easier said than done. That isn't to say that hitting is an impossible task; it's just that it takes some practice.

It's interesting that Bo Jackson Baseball lets you move the batter in the batter's box when the ball is on its way to the plate — something frowned on by coaches everywhere. If your player is crowding the plate and the pitch is inside, for example, you can have the batter move both feet back in the box and swing. If you've played baseball on any level, you know how unrealistic that is.

Throw those fundamentals out the window in Bo Jackson Baseball. In fact, if you watch the computer-controlled players bat, you'll notice that they move around the batter's box when the ball is coming in. It seems to work for them.

Play it Your Way

Although it's challenging and fun to master the action part of Bo Jackson Baseball, it's also fun to play manager over the course of a 162-game schedule. You change team names to reflect your town or city or your personality. (What do you think of the Peterborough Fighting Trout?) You can also change the names and the attributes of the players. For example, I renamed the Boston entry Peterborough and changed the players' names to those of friends. I even tried to match the players' attributes and ratings with their real-life characteristics. (So far, Peterborough is a game back of New York with 50 games left.)

Before you begin your season, you'll want to set two starting lineups — one for when you face right-handed pitchers and one for when you face left-handed pitchers. You can also set your pitching rotation. You can change your lineup and rotation at any point in the season, of course. Bo Jackson Baseball will update your team stats as the season progresses, so that you can

check from time to see how your players' numbers compare.

Championship Season

Bo Jackson Baseball is a fun game that boasts superb graphics images and animation. If you love computer baseball games, it certainly deserves your consideration. If you lean more toward arcade/action games than strategy/statistics games, Bo Jackson Baseball will be especially appealing. Unfortunately for Bo Jackson Baseball, the field already has two excellent games — Tony LaRussa's Ultimate Baseball and Earl Weaver II. The difference between Bo Jackson Baseball and those games is the subtle difference between a great player and a Hall of Fame player.

Data East, 1850 Little Orchard Street, San Jose, CA 951250-1045, (408) 286-7074; 640K IBM PC, Tandy, or compatible; 256-color VGA, Tandy 16-color; 10Mhz or faster, hard-disk drive, joystick recommended; supports Roland, Tandy, Sound Blaster, AdLib sound boards; off-disk copy protection; $59.95

THUNDER BOARD

By Gregg Keizer

Games bop, blast, roar, shout, sing, even speak. They're anything but quiet — that is, if the inside of your PC contains an audio card.

Shun a sound board and your computer still makes noises, irritating noises. But call them anything but a popping, crackling cacophony, and your picture is in the dictionary under *optimist*. The PC just wasn't meant to make your toes tap — not the way it comes to you from the factory, anyway.

It's lucky for games, and players too, that there are plenty of sound boards from which to choose. Luckier, still, is that even the priciest don't cost more than three or four good games.

One of the most affordable is Media Vision's Thunder Board, a journeyman audio card that does the job. It may not win any awards for best sound or ease of installation, but it's priced right and handles the bulk of game sound and music currently on the shelves.

Sweat It Out

Installing a sound card, then getting it up and running, can be a nightmare, even for the technically clever. What with jargon such as *interrupts* and *addresses* to contend with, *jumpers* and *DIP switches* to mess with, you've got your work cut out for you.

Audio installation can be a nightmare on the PC, enough to scare away PC gamers, who consider a computer an entertainment machine, not a hunk of hardware they dip hands into. Compatibility problems can crop up, problems that are sometimes tough to track down.

Thunder Board doesn't do much to calm those fears. Fault lies in the documentation, which sets aside only half as many pages for installation instructions as it does for running the card's recording and editing software (not much of a draw for most PC gamers). And on top of that, Thunder Board's diagnostic software lacks punch.

You may have an irksome lesson ahead of you. To install the board, you may have to seat it in an empty slot, try the test program, remove the card, change the jumper block and DIP switches, return the board to the PC, and test again. Not much fun when all you're looking for is some electronic amusement.

What Thunder Board lacks is a foolproof diagnostic program that can tell you which interrupts and I/O-port addresses are already in use, then recommend some settings. What you get is nowhere near the excellent diagnostic software that comes with the AdLib Gold card, for instance. (In its defense, Thunder Board costs only half as much as the Gold peripheral. See Sneak Peeks, p. 42, in this issue for details on the AdLib Gold 1000 Sound Card.)

Of course, you may get lucky and install Thunder Board in minutes — as I did on a clean 386SX that wasn't connected to anything more complex than a mouse — but the possibility of frustration simply shouldn't exist. Not today, when so many gamers see the PC strictly as a game platform.

Once you have this half-sized, 8-bit board installed and the PC cover closed, you'll want to run a volume-setting program to help you fix the thumbwheel volume control at the back of the system. Be careful — the program emits a continuous tone, and if the thumbwheel is set anywhere near high, you may blow speakers or harm your hearing. (I overlooked the volume during installation, and took a painful blast over headphones that literally stunned me.)

No Special Specs

Thunder Board is an 11-voice synthesizer board that pumps out 8-bit sound. Its main claim is complete compatibility with both AdLib and Sound Blaster musical scores, effects, and in the case of the Sound Blaster, speech.

An on-board 2-watts-per-channel amplifier powers the sound, so you can drive speakers directly, as well as jack headphones into the audio-out port at the rear of the card. Like Sound Blaster, Thunder Board includes an analog joystick port, which you'll have to disable with a DIP-switch setting if your PC already sports a built-in joystick connector.

The only other spec gamers need to pay attention to is Thunder Board's digital-to-analog convertor (DAC), which puts out digitized sounds at up to 22 kilohertz (good enough for Sound Blaster-style digitized speech). Other features — *Thunder Master* software, an audio-in jack, audio file compression up to four to one, and dynamic filtering — flesh out the

board's recording and editing capabilities, but are of little use to game-only buyers.

Like more expensive boards such as Sound Blaster Pro and Media Vision's own Pro AudioSpectrum, Thunder Board uses the monophonic Yamaha YM3812 synthesizer chip to produce its sounds and music. In plain words, Thunder Board isn't a stereophonic card. It can, however, throw sounds alternately to either speaker or headphone for a stereo-style effect. To put that sound dead center, Thunder Board has to use two of its 11 voices.

Sounds Tell All

All told, Thunder Board's specifications compare with the two boards it mimics — AdLib and Sound Blaster. In practice, that mimicry is almost perfect.

The proof is in the listening. Thunder Board accurately apes the two audio cards most commonly supported by PC game developers.

Extensive testing uncovered only one program that wouldn't work with Thunder Board. Mickey's Jigsaw Puzzles, from Walt Disney Software, puts out limited speech when a Sound Blaster is inside the PC. Using Thunder Board in its place simply locked up the system.

Other programs, from Nova 9 and EcoSaurus to Rampart and Wing Commander, worked fine with Thunder Board. Sound and music wasn't glorious — an unwelcome background hiss was almost always present, and the frequency response was good at best.

Your ears won't be fooled into thinking you're listening to a decent stereo system or film score — it's more likely you'll imagine typical television audio when you close your eyes and perk up your ears.

Even so, this board gives good sound for your dollar. Readily available by mail for $10 to $20 less than the Sound Blaster card, Thunder Board performs as well as that more-established audio peripheral.

Think Ahead

Don't bother with Thunder Board if you're thinking about moving up to multimedia or if you demand top-of-the-line sound in your games. The Sound Blaster Pro, the Pro AudioSpectrum, and the AdLib Gold cards, though more expensive, will take you into the next couple of years of PC sound. Thunder Board is now old technology.

But if you're looking for gaming's audio basics and you've got to stretch your electronic entertainment budget, Media Vision's Thunder Board is a solid pick. ❑

Media Vision, 47221 Fremont Boulevard, Fremont, CA 94538, (800) 845-5870; 512K IBM PC, Tandy, or compatible (except Tandy 1000 EH/HX); DOS 2.0 or later; requires one 8-bit expansion slot; $169

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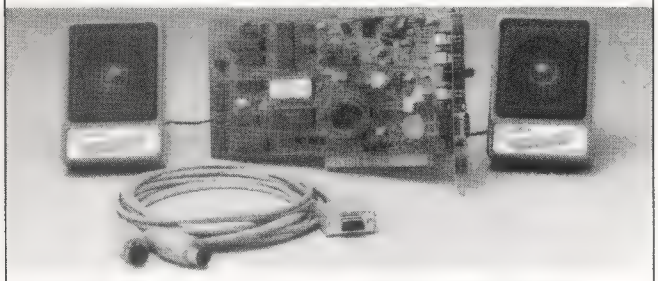

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Continued from page 160

right for you, but they're wrong for others. That doesn't make them better or worse — just different.

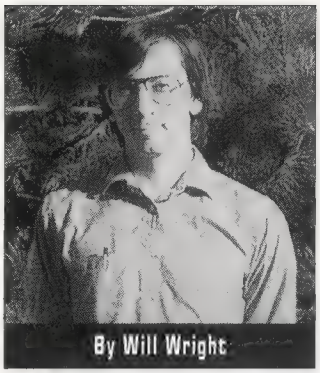
When you voice your opinions, try to qualify them for the appropriate audience. Brand X is not the best role-playing game ever made: it may just be the best game for experienced role-players. That Brand Y you disdain could be the best game for people wanting to learn about role play.

In the 1970s, board war gaming enjoyed one brief shining moment of glory, largely due to the leadership of Simulations Publications, Inc. (SPI). But then the aficionados took over. They wrote letters and campaigned for greater depth.

Responding to these pressures, SPI made its games increasingly complex. The aficionados were pleased, but the supply of new game players dried up as the beginners were chased away. War gaming withered and SPI died in 1981.

Board war gaming is still around, but only as a shadow of its former self. The same thing could happen to us. Don't play your part in this new Greek tragedy.

Chris Crawford is a noted game designer, editor of the Journal of Game Design, *and original founder of the Computer Game Developers Conference, with such credits as* ***Eastern Front***, ***Balance of Power***, *and* ***Balance of the Planet*** *on his vita. His most recently published work is* ***Patton Strikes Back***. *At the moment, he's working on a game based on the Arthurian legends.*



By Will Wright

LIFE FORCE

The evolution of games will take a page from Mother Nature.

Sometimes we game designers sit back after a hard day at the keyboard, dust off our crystal balls, and attempt to look into the future. We try to imagine how what we do now will become the games of the years ahead. It's part of what keeps us going. And though each crystal ball has a different picture in it, the real future will be some odd collection of all these visions. Here's mine.

I see the exploration of funspace (the set of all possible fun things to do with a computer) proceeding on two major fronts — *bandwidth* and *complexity*.

Bandwidth is the amount of data that can flow between the player and the computer. Right now the bandwidth of our games is limited by the hardware we use: 2D monitors; limited sound; and keyboard, mouse, and joystick input. This battle will be advanced as we move into virtual-reality systems.

Complexity, on the other hand, is what goes on inside the computer as it attempts to simulate a purple dragon for you to behead. As we can increase the complexity of our games, the simulated worlds will become more lifelike, more subtle and, above all, less predictable.

Now don't confuse complexity with the computer's raw processing power. Processor speed is still increasing rapidly and is about to exceed the rate at which we can increase the complexity of our software.

Software development is still very much like writing a cookbook by trial and error. Design a recipe, try to cook it, it crashes; modify recipe, try to cook it, it burns; try to cook it, under perfect conditions it tastes okay, then ship it.

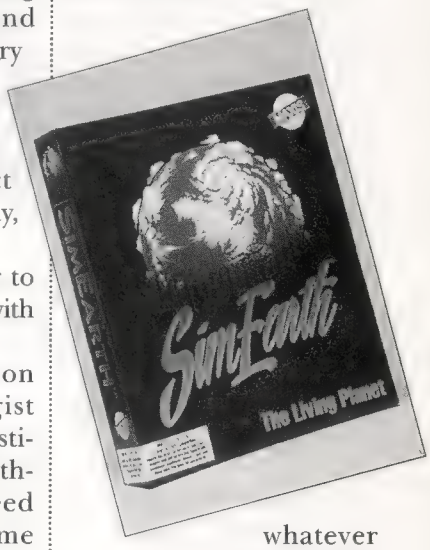
So here we are trying to do genetic engineering with kitchen utensils.

Did someone mention genetics? The biologist Richard Dawkins has estimated that the gene within a single willow seed carries about the same amount of information as a single 800K floppy disk. I don't know about you, but I've never seen a program on a floppy (or anywhere else) that came anywhere close to rivaling the complexity of a willow tree. Perhaps Mother Nature is on to something.

As many people have long suspected, life is turning out to be the granddaddy of all complex systems. And how did it get that way? In a word, *adaptability*. The reason you are a multicellular biped rather than a single replicating molecule (I'm assuming replicator molecules don't read *PCGames*) is that your ancestors had the ability to adapt. This is a very powerful thing.

I'm becoming convinced that future software will be largely modeled on the processes of life. It will show up under a variety of names: genetic algorithms, neural networks, computational ecologies, and even artificial life.

In ten years or so, you'll walk into your game room, don your virtual-reality gear (or cybersuit, or direct neural link, or



whatever the current high-bandwidth devices are), and enter a world. But this world won't be a static, linear one cooked up from a bad recipe. It will be dynamic, unpredictable, and subtle. It will evolve around you, as you move through it. It will adapt itself to you as it measures your responses.

The game will be you, and you'll be the game. ❑

Will Wright is the designer of such award-winning simulations as ***SimCity***, ***SimEarth***, *and* ***SimAnt***. *He is currently working on software to highlight the connections between biology and computer science.*

PLAYING THE GAME

SERIOUS FUN

By Neil Shapiro

If you're reading this column, chances are you're serious about your fun. After all, you want to know the ins and outs of your gaming software, so that you can take it to its limits. No matter your pleasure — fantasy role-playing, adventure, or arcade-style action — you want to reach your gaming potential. So without further delay, let's take a look at some hints for playing SSG's **Warlords** and Accolade's **Les Manley in: Lost in L.A.**

Finding Your Way in Tinsel Town

The new adventure game Les Manley in: Lost in L.A. is a visual knockout. The mixture of bit-mapped VGA graphics and actual mini-movies made from digitized video are eye-catching in themselves. But when you meet Maladonna and some of the digitized starlets, your monitor may need a fan.

As you travel around Los Angeles trying to find out why some of Hollywood's most famous stars are doing vanishing acts, you'll find wheels within wheels, mysteries within mysteries to solve. The following clues should help you get the most from this exciting new game:

Les Manley in: Lost in L.A. is a visual knockout.

• **In Act 1 be sure to go into Murray's hotel and ask him about Blade (the kid across the street).** He'll tell you that Blade's real name is Peacechild. As you leave, Murray will point to an exit and you'll see that he has a yellow ticket. You want that ticket! You'll have to go back and ask him about it and he'll give it to you. It's actually a pass to Club Mud. He'll also give you a package of film.

• **To get into Club Mud you'll need the film.** You must take it to the film booth and give it to the woman there. Then she'll let you have your picture taken with the star of your choice. Ask for LaFonda Turner. Now take the photo to Lou's Pawn Shop. Lou is a big fan of LaFonda's. He'll give you a laptop computer in exchange for the photo.

• **Without that laptop computer you can't get into Club Mud.** The excuse is that there are no seats, but if you have the computer, the club will have the seats. Enjoy the mud wrestlers.

• **In Act II make sure you either save your game first or don't agree to Abe Goldstein's plan for you to star in *The Les Manley Story*.** If you agree, the game ends. Reject the offer and you'll go to a big Hollywood party.

• **During the party you'll find yourself accusing Les or Maladonna — it doesn't matter which one.** The key here is to make sure you follow the limo that Maladonna gets stuffed into all the way to the Hollywood Wax Museum where Act III (The Finale) takes place.

• **In Act III be certain that you use the torch to "view" Helmut.** It will melt the wax that disguises that star as a statue.

Lost in L.A. doesn't bring anything truly new to adventure gaming, but with state-of-the-art graphics, it's one of the best of the new batch. (Well, I suppose I'm waxing enthusiastic here.)

From the Halls of Sulador

The first time you start up SSG's Warlords, don't make the same mistake I made: Don't let its simplistic interface trick you into thinking game play is simplistic. In fact, after you play it for a few minutes, you'll discover a complex, rewarding military simulation that takes only moments to learn, but a lifetime to master. After the first few moments, the first few hours, the first few days, the first few weeks of play, this game became one of my personal favorites.

Warlords has about the smoothest interface of any game in its genre. As you move armies from castle to castle in the land of Illuria — which also means you must produce soldiers, fight battles, and plan tactical surprises — the interface really lets you get involved in the story.

Unlike some games, Warlords doesn't make you step out of the simulated world to look up the mechanics of game play in a manual. As you travel through the story, the cursor shows you intuitively how far you can move. To discover the meaning of a strange icon, just double-click on it and you'll see a full explanation. (This is

one game that really utilizes the mouse.)

Even though the interface is intuitive, after a month of play I came to an embarrassing conclusion — I was losing a lot. I became so desperate that I called Gregor Whiley, one of SSG's principals, to beg for some hints. (Gregor lives in Australia and I live in New York, so you can see how much I love Warlords.) Here are the tips that made me a better Warlord:

• **Warlords is oriented around attack.** You must attack your opponent's castles, or counterattack to regain your own. Overall strategy isn't complex. Start the game by producing light infantry as quickly as possible, and by getting as many neutral castles as you can. Send your hero to the nearest ruin and keep him looking for artifacts. Once all the castles are owned, pick on a neighbor and crush him. Consult the *Hatreds Report* before doing this, though. If someone is determined to attack you, don't antagonize someone else. Try to ignore minor incursions by other players while you concentrate on the main enemy.

• **As things settle down, start replacing your light-infantry garrisons with heavy infantry.** Anything more is a waste of a good unit and money. To find out what's in an enemy stack or castle, send a single light-infantry unit to attack first. The information it gathers could be vital.

• **Now start optimizing your stacks by forming A-grade stacks, ones in which all armies are at maximum strength.** Build as many A-team stacks as you can for the lowest possible price, while still preserving your heroes. Heroes are key to these stacks, because only a hero can turn spear fodder such as the light infantry into supermen. Always maintain sufficient cash so that you can hire new heroes, and never refuse an offer of hire. For a hero to be truly effective, he needs some of Illuria's awesome artifacts. Get your heroes scouring the land for them, and bushwhack enemy heroes at every possible opportunity.

• **With a strength level of only three, the light-infantry units are pretty useless, but they're cheap, quick to produce, and have reasonable movement.** With the right leader, they can be unstoppable. By adding creatures with special and flying bonuses to your stack, you can take light infantry to a strength of five. The right sort of hero who has a few artifacts can take the strength level to an eight or a nine. A stack of six light infantry at strength eight and a dragon and hero at strength nine make for a tough battle. In combat, you'll lose the light infantry first, but you can re-create the stack by pouring in more light infantry. If you follow such a stack with other light-infantry stacks as you cruise around the board, reinforcements are only a step away.

• **Light-infantry strategy may not be possible with all your heroes.** Lesser heroes can pull the same trick; they just need slightly better material with which to work. Cavalry, wolves, or giants with a strength level of around five or six are ideal. They cost more and take longer, but they move better. The main point is to try not to have any stack attack unaugmented.

• **Also, you shouldn't attack a full stack led by an enemy hero with your own A-grade stack.** You may lose. Wear it down with a couple of medium-grade stacks first. This tactic is costly because your heroes are hard to replace, but if the enemy hero finally expires and leaves behind a pile of artifacts, you'll have done well on the transaction.

• **Even as your empire expands, you'll find it hard to support more than two main efforts.** After all, relentless attrition places a strain on your reinforcement stream. Consider putting two hero stacks into a strong strike force, rather than creating two weaker forces that are continually compelled to wait for more men. The second hero can pick up the pieces if your first falls in battle. You should also keep one good stack behind in a goalkeeper role to limit the damage from the deep strikes the computer likes to mount behind the lines.

The winner in Illuria is the player who manages his or her troops best, and strikes hard and fast. Aim to do as much damage in as short a time as possible. A crippled opponent can't fight back, and must eventually fall to your victorious armies.

These tips will make you a much better Warlord. And, you lucky people, when the phone bill arrives, you don't have to explain why you called Australia.

Your Turn

Send your hints, game tips, and playing techniques to me at P.O. Box 520, Bethpage, NY 11714. Come on . . . it's an easy way to get your name in print — and maybe even become famous. ❑

PRODUCT INFORMATION

Les Manley in: Lost in L.A.
Accolade
550 South Winchester Blvd.
San Jose, CA 95128
(800) 245-7744
$59.95
640K IBM PC,
Tandy, or compatible
10MHz or faster
DOS 2.1 or later
VGA, MCGA
supports AdLib,
Roland MT-32/LAPC-1,
Sound Blaster, Thunderboard
sound boards
requires hard-disk drive
mouse recommended

Warlords
Strategic Studies Group
1747 Orleans Court
Walnut Creek, CA 84598
(904) 494-9373
$49.95
640K IBM PC,
Tandy, or compatible
VGA, EGA
supports hard-disk drive
supports mouse
no copy protection

CAPSULE PCG REVIEWS

Here's a look back at many of the titles that made their débuts this past year.

HEART OF CHINA

Dynamix/Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **VGA (separate 16- and 256-color packages)**
- **requires hard-disk drive**
- **80286 microprocessor or better**
- **supports Roland MT-32/LAPC-1/ CM-32L, AdLib, Sound Blaster, PS/1 Sound Adaptor sound boards**
- **mouse or joystick recommended**

Heart of China beats strong. As Jake "Lucky" Masters, a not-too-bright WWI pilot, you must rescue a rich man's daughter from the warlord Li Deng. This massive and vibrant tale of high adventure in the mysterious East is packed with people to see, things to pick up, and places to go. But it's not easy — you control three characters, not one, and the trio must work together.

This game is big, both in required hard-disk space (8.7 megabytes) and in game play. Alternative solutions to problems make it a joy to play. And the VGA graphics images are glorious. Instead of drawings, the game uses some 85 actors. Heart of China is simply splendid. **See Reviews, September/October 1991, p. 47.**

SOUND SOURCE

Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360

- **$39.95**
- **IBM PC, Tandy, or compatible with parallel printer port (adapter available for Tandy 1000 computers)**

Disney characters sound off thanks to Sound Source, Disney Software's add-on device that delivers high-quality audio for an unbelievably low price. You don't even need to pop the top of your computer to hook it up. It needs no internal slot; instead, it plugs into the parallel port at the back of your PC, where you normally connect your printer.

Sound Source can't be beat on price or capabilities, but its major flaw is that so few programs currently take advantage of its technology. This product blazes new sound trails with Disney preschool packages in particular, but compatible software from other companies is still scarce. For the moment, though, consider Sound Source a sound investment for compatible Disney software. **See Reviews, September/October 1991, p. 48.**

LEMMINGS

Psygnosis, Ltd.
29 St. Mary's Court
Brookline, MA 02146
(617) 731-3553

- **$49.99**
- **512K IBM PC, XT, AT, PS/2, Tandy, or compatible**
- **CGA, EGA, VGA, Tandy 16-color**
- **supports AdLib, Sound Blaster sound boards**
- **mouse recommended**
- **supports joystick, keyboard**
- **copy protection (key disk)**

If you've met the challenge of children and won, you've experienced a taste of the trouble you'll get from Lemmings. These short green-haired creatures have a nasty talent for self-destruction — and you must save them from near-certain death.

Every screen is well illustrated and is filled with eye-catching color. Although Lemmings are tiny creatures — only 15 to 20 pixels high — fluid animation and idiosyncrasies bring them to life.

But don't be fooled by the shiny surface. Beneath the dazzling graphics skin lies a fiendishly challenging puzzle. These critters may be dumb, but you've got to save them — they're just too cute. **See Reviews, September/ October 1991, p. 49.**

LINKS: THE CHALLENGE OF GOLF

Access Software
4910 West Amelia Earhart Drive
Salt Lake City, UT 84116
(801) 359-2900

- **$59.95**
- **640K IBM AT, 286, PS/1, PS/2, Tandy, or compatible**
- **VGA, MCGA**
- **hard-disk drive recommended**
- **supports AdLib, IBM PS/2 Speech Adaptor, Sound Blaster, MSound sound boards**
- **keyboard, joystick**
- **mouse recommended**
- **no copy protection**

Links: The Challenge of Golf is one of the most realistic and panoramic golf games to hit the pin in years. This piece of entertainment software captures every challenge in a real round of golf. You must select the right club, aim and hit your shot, adjust your stance, open and close the club face, and draw or fade the ball.

The fairway views, the digitized graphics images, and the RealSound effects make it easy to pretend there's grass under your feet instead of carpet. And once you've mastered the course that's provided, you can choose from a number of extra course disks. **See Reviews, September/October 1991, p. 50.**

EYE OF THE BEHOLDER

Strategic Simulations
675 Almanor Avenue
Suite 201
Sunnyvale, CA 94086
(408) 737-6800

- $49.95
- 640K IBM PC, Tandy, or compatible
- CGA, EGA, VGA, MCGA (256-color), Tandy 16-color
- supports AdLib, Sound Blaster
- mouse recommended

For a first-person view of adventure you can't do much better than Eye of the Beholder. This game promises a realistic dungeon experience, complete with creepy sounds, leaping dwarves, and soaring arrows. As for pure graphics splendor, Eye of the Beholder delivers a knockout punch in full 256-color VGA.

The game's icon-driven object-management system is impressive, too. An item dropped stays there. One drawback, though, is that some of the game's combat sequences seem simplistic and almost arcade-like. All in all, though, this game is well worth playing. **See Reviews, September/ October 1991, p. 52.**

BANE OF THE COSMIC FORGE

Sir-Tech Software
P.O. Box 245
Ogdensburg Business Center
Ogdensburg, NY 13669
(315) 393-6644

- $59.95
- 640K IBM PC, Tandy, or compatible
- requires two floppy drives or hard drive
- monochrome, CGA, EGA, VGA, Tandy 16-color
- supports AdLib, Sound Blaster, Sound Master, VoiceMaster sound boards

Bane of the Cosmic Forge kicks off a new round of Wizardry games with a slew of adventure skills, 77 new spells, and two new character classes. As you explore a castle in search of the Cosmic Forge, you'll encounter the restless spirits of former inhabitants.

Packed with an incredible amount of detail and a unique magic system based on spell points, Bane provides an engaging story. The game's combat sequences hearken back to the traditional round, in which you choose different options depending on your weapons. Even though Bane's graphics images aren't too spectacular, the game has overall appeal. **See Reviews, September/October 1991, p. 52.**

SIMEARTH

Maxis
Two Theater Square, Suite 230
Orinda, CA 94563
(415) 254-9700

- $69.95
- IBM PC, PS/1, PS/2, Tandy, or compatible
- 640K RAM (540K free)
- DOS 2.1 or higher
- Hercules, Tandy, EGA, MCGA, VGA
- hard-disk drive with at least 1.5MB free
- supports AdLib, Sound Blaster, Sound Master sound boards, Tandy sound

Building a world isn't easy, and SimEarth reflects this predicament. SimEarth, a planet simulator, creates worlds, then lets you tinker. Using a complex set of controls, you build and manipulate a planetary environment.

From establishing life to setting the altitude, you control it all. SimEarth is an ambitious program that may not be suitable for gamers interested in only an evening's or even a weekend's worth of fun. But make the commitment and infinite worlds are at your beck and call. **See Reviews, September/ October 1991, p. 54.**

DUCKTALES: THE QUEST FOR GOLD

Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360

- $44.95
- 512K IBM PC, Tandy, or compatible
- CGA, EGA, Tandy 16-color
- color monitor
- two 5.25-inch drives, one 3.5-inch drive, or one drive and hard disk
- off-disk copy protection

With DuckTales: The Quest for Gold, Disney Software brings one of the hottest TV cartoon adventures to the PC screen. DuckTales features six arcade-like challenges at three levels of difficulty. You join Scrooge McDuck and friends as they travel the globe in search of treasure. You'll wend your way through tunnels, raft down rivers on the backs of hippos, and creep past cat-napping panthers. All kinds of dangers await you, from bottomless pits to tree-dwelling snakes.

Superbly animated color graphics images provide a host of cartoon-like visual treats. Unfortunately, game play is difficult and makes most players frustrated. Winning is next to impossible. If your kids are light on patience, buy something else. **See Reviews, September/October 1991, p. 58.**

LIGHTSPEED

MicroProse Software
180 Lakefront Drive
Hunt Valley, MD 21030
(301) 771-1151

- $59.95
- IBM PC, AT, PS/1, PS/2, Tandy 1000, or compatible (80286 recommended)
- 512K RAM (640K for VGA, MCGA)
- CGA, EGA, VGA, MCGA, Tandy 16-color
- two floppy-disk drives or one high-density drive or hard disk
- supports Roland MT-32, AdLib sound boards
- joystick recommended
- off-disk copy protection

Lightspeed is the sort of simulation that doesn't wear out its welcome after a few heavy sessions. In this electronic reality, you must make one of two star clusters safe for humanity by practicing diplomacy, trading, and mastering a complex starship. Sooner or later, though, you have to fight. The actual joystick action can be fast and furious. Lightspeed is a multi-faceted game that not only captures your imagination, but gives you a thrill every time you play. **See Reviews, September/ October 1991, p. 62.**

DAS BOOT

Three-Sixty Pacific
2105 South Bascom Avenue
Suite 380
Campbell, CA 95008
(408) 879-9144

- **$49.95**
- **512K IBM PC, Tandy, or compatible**
- **Hercules, CGA, EGA, 256-color VGA, MCGA, Tandy 16-color**
- **supports AdLib, Sound Blaster sound boards, Tandy 3-voice sound**
- **mouse optional**
- **no copy protection**

Das Boot, a WWII submarine sim that puts you in command of one of Germany's U-boats, taxes your patience and your daring. Your mission includes searching for enemy shipping, stalking targets, fleeing from buzzing airplanes, and hammering at shore installations with your deck gun. This game even includes aircraft.

But all's not perfect. Das Boot's interface and controls are awkwardly inconsistent. Its paltry five missions are too few for long play. For a quick foray into undersea warfare, though, Das Boot is satisfying. **See Reviews, September/October 1991, p. 64.**

JONES IN THE FAST LANE

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$39.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM (640K for VGA, MCGA)**
- **8MHz or faster recommended**
- **EGA, VGA, MCGA, Tandy 16-color**
- **hard-disk drive recommended**
- **supports Roland MT-32, AdLib, Sound Blaster, Game Blaster sound boards**
- **joystick or mouse recommended**

How ya doin' in the game of life? Play Jones in the Fast Lane and find out. In this game you set and try to meet goals in four areas — happiness, career, wealth, and education. As you travel around the game board, squares come alive with choices, and animated faces may engage you in conversation.

This game won't appeal to everyone, but if you have some buddies who want to join the fun (playing it alone can get repetitive), Jones can be more than just a quick turn around the game board of life. **See Reviews, September/October 1991, p. 68.**

RED BARON

Dynamix/Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **minimum 10MHz microprocessor speed**
- **VGA (separate 256- and 16-color versions available)**
- **supports Roland, AdLib, Sound Blaster sound boards**
- **off-disk copy protection**

By far the most graphically stunning WWI-period flight simulator, Red Baron puts you in the cockpit as you fly against German, English, and French aces. You can choose from a variety of missions, and even fly in an ongoing campaign.

Each cockpit in Red Baron is painstakingly rendered, down to the wood grain of your instrument panel. This game is a 256-color VGA graphics wonder that shows you filled-polygon representations of each fighter in full camera-controlled 3D. If you want to fly during a time when every plane practiced stealth, Red Baron's your game. **See Reviews, September/October 1991, p. 70.**

TIMEQUEST

Legend Entertainment
14200 Park Meadow Drive
Chantilly, VA 22021
(703) 222-8500

- **$59.95**
- **512K IBM PC, Tandy, or compatible**
- **CGA, EGA, MCGA, VGA, Tandy 16-color**
- **supports RealSound, AdLib, Roland sound boards**
- **mouse optional**

If you've ever wished you could travel back through time, TimeQuest may be the trip you're looking for. Lieutenant Zeke Vettenmeyer has gone back in time and changed ten critical historical events. You must follow him to nine time periods, repair the time rifts he has created, and track him down.

TimeQuest's graphics window, on-screen maps, mouse-driven interface, and context-sensitive noun list make this adventure role-playing game easy to use. As it pops around from one civilization to the next, though, TimeQuest sometimes feels like History McNuggets. Basically, though, it's fun — for the mind, the eye, and the ear. **See Reviews, September/October 1991, p. 72.**

SOUND MASTER II

Covox
675 Conger Street
Eugene, OR 97402
(503) 342-1271

- **$229.95**
- **256K RAM**
- **DOS 3.0 or later**
- **one available 8-bit slot**

Good electronic entertainment depends on sound and music to make you feel part of the action, so it's no wonder that sound boards are often the first add-on gamers pop into their PCs. At first glance, Covox's Sound Master II may seem impressive — it has 100-percent AdLib and high Sound Blaster compatibility, a MIDI interface, digital sound recording and playback, speech synthesis, voice recognition, and more — but it's marred by poor documentation and difficult setup.

Its greatest drawback is that it can't reproduce a stereo signal, except by changing it to mono. If you're in the market for a game card, you'll have better luck sticking with AdLib or Sound Blaster, two proven standards in computerized sound reproduction. **See Reviews, September/October 1991, p. 74.**

MIKE DITKA'S ULTIMATE FOOTBALL

Accolade
550 South Winchester Blvd.
San Jose, CA 95128
(408) 985-1700

- **$54.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz or faster recommended**
- **VGA, MCGA, EGA, Tandy 16-color**
- **supports Roland, AdLib sound boards**
- **keyboard, joystick, or mouse**

The beauty of Ditka (the game, not the guy) is that it lets you get as deep or stay as shallow as you want, and still have fun. You can extend your control down to the strength and agility of each player, or you can use the predefined teams and just throw the ball around.

Mike Ditka's Ultimate Football could prove to be the perfect blend of strategy and action for the armchair quarterback. The graphics displays are detailed and convincing, the action should satisfy any twitchy-fingered arcade hound, and the playmaking and calling options are plentiful without being overwhelming. **See Sneak Peeks, November 1991, p. 43.**

PLAYMAKER FOOTBALL

Broderbund Software
500 Redwood Blvd.
P.O. Box 6121
Novato, CA 94948-6121
(415) 382-4400

- **$49.95**
- **540K IBM PC, Tandy, or compatible**
- **VGA, MCGA, EGA, CGA, Tandy, Hercules monochrome**
- **supports Roland MT-32/LAPC-1/CM-32L, Sound Blaster, AdLib, Tandy DAC, Tandy three-voice, IBM PS/1 sound boards**
- **keyboard, joystick, or mouse**

Playmaker Football isn't your typical football game, but rather a coaching simulator. You can take control of a player on the field, but sparse and choppy animation, awkward controls, and a Goodyear Blimp overhead view make it almost certain that you'll do more harm than good. This is a game for the brain, not the fingers.

What it lacks in live action Playmaker more than makes up for in strategic possibilities. The package ships with ready-to-run teams and playbooks, but if you're a real aficionado you can create your own team from scratch. Then you can turn it over to an artificially intelligent "AI Coach" you program to play your way. **See Sneak Peeks, November 1991, p. 43.**

THE ADVENTURES OF WILLIE BEAMISH

Dynamix/Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$59.95**
- **540K IBM PC, Tandy, or compatible**
- **12MHz or faster recommended**
- **EGA, VGA, Tandy 16-color**
- **supports AdLib, Sound Blaster, Roland MT-32/LAPC-1/CM-32L, PS/1 sound boards**
- **requires hard-disk drive**
- **mouse recommended**

The Adventures of Willie Beamish features a foundation of Saturday-morning cartoon animation, but this game's not just for kids: Willie's antics are designed to tickle adult funny bones.

The story starts with a kid: Willie goes to school or doesn't, does his chores or doesn't, and gets into trouble with his suburban TV family. But the story turns bizarre as it unfolds — Willie's mom dresses like a refugee from a '60s beach party, for instance. His dad looks like a bespectacled version of Ed Bundy from *Married with Children*. The VGA art is lovely. You'll enjoy the slightly faded, postwar touch to the graphics images. The animation, though, doesn't offer character control: You don't so much move Willie as aim him at an exit or object. **See Sneak Peeks, November 1991, p. 44.**

CIVILIZATION

MicroProse Software
180 Lakefront Drive
Hunt Valley, MD 21030
(301) 771-1151

- **$59.95 (EGA, MCGA, Tandy), $69.95 (VGA)**
- **640K IBM PC, Tandy, or compatible**
- **EGA, MCGA, VGA, Tandy 16-color**
- **supports AdLib, Roland MT-32, Sound Blaster sound boards**
- **requires hard-disk drive**

Civilization is ambitious. It shoves together all the bits and pieces of history and technology into a fun, intriguing, and addictive simulation. You start with a blank map and a single band of settlers. The rest of the world becomes clear as you explore it. You discover cities, raise armies, mine ores, and encounter competition from other civilizations.

Civilization is no simple war game. You need culture and education as well as military might. But it *is* fun to play — it's not as tiresome a history lesson as its description may imply. **See Sneak Peeks, November 1991, p. 48.**

XENOCIDE

Micro Revelations
P.O. Box 70430
Reno, NV 89580
(800) 442-6002

- **$44.95**
- **512K IBM PC, Tandy, or compatible**
- **CGA, EGA, Tandy 16-color, 256-color VGA, MCGA**
- **supports AdLib, CMS, Covox, Game Blaster, Sound Blaster, Roland sound boards, Tandy three-voice sound**

Multiple skill levels, various viewing modes, high-resolution graphics, and intriguing puzzles put Xenocide several notches above the average arcade game. The planet's three moons are overrun with Xenomorphs, and you've got to eliminate the little monsters. Each moon has four levels you must negotiate successfully before you can destroy the moon and its occupying Xenomorphs.

Xenocide moves to the head of the

class by dropping tidbits of strategy into its frenetic action. Its animation is smooth and the sound is great, but a novice may find it a little daunting. **See Reviews, November 1991, p. 55.**

THEME PARK MYSTERY

Konami
900 Deerfield Parkway
Buffalo Grove, IL 60089
(708) 215-5100

- **$49.95**
- **512K IBM PC, Tandy, or compatible**
- **CGA, EGA, VGA, MCGA, Tandy 16-color**
- **requires joystick or mouse**
- **off-disk copy protection**

Theme Park Mystery is an entertaining whatdunnit game that tests your fingers' dexterity more than it challenges your sleuthing skills. Although you must figure out why the park is haunted, the game is overwhelmingly arcade action.

Theme Park Mystery is a good-looking, easy-to-play game that offers software entertainment in an enigmatic setting. But if you deduce from the title that strategy or problem solving is important, you're in for a disappointment — this is an arcade game. If you come to the Park with the right attitude, you'll enjoy the ride. **See Reviews, November 1991, p. 56.**

WHERE IN AMERICA'S PAST IS CARMEN SANDIEGO?

Broderbund Software
500 Redwood Boulevard
P.O. Box 6121
Novato, CA 94948-6121
(415) 382-4400

- **$59.95**
- **IBM PC, Tandy, or compatible**
- **640K RAM (VGA, MCGA), 512K RAM (Hercules, CGA, EGA, Tandy 16-color)**
- **Hercules, CGA, EGA, VGA, MCGA, Tandy 16-color**
- **MS-DOS 2.11 or later**
- **requires hard-disk drive**
- **supports AdLib, Sound Blaster, PS/1 Sound, Roland MT-32/LAPC-1/CM-32L sound boards, Tandy sound**
- **off-disk copy protection**

Carmen is at it again. This time her gang is lifting American artifacts and cultural landmarks. Your job is to nab the crooks with the loot. With 80 cases to solve, there's plenty of mystery for everyone. And while you're at it, you'll learn American regional history, folkways, political events, and culture.

Although it plays much like the other Carmen programs, Where in America's Past offers even more realistic sound effects and great 256-color VGA graphics images. As you skip through time, your guidebook is the accompanying 1500-page reference book, *What Happened When: A Chronology of Life and Events in America*. An electronic map of the United States gives young sleuths the opportunity to learn more about the states in a particular region. **See Reviews, November 1991, p. 57.**

SPACE QUEST IV

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$59.95**
- **IBM PC, Tandy, or compatible**
- **640K RAM (supports extended memory)**
- **10MHz 286 or faster recommended**
- **EGA, VGA**
- **supports AdLib, Roland, Sound Blaster sound boards**

The galaxy's best-known sanitation engineer turns the clock ahead with Space Quest IV: Roger Wilco and the Time Rippers, picking up where Space Quest III left off. Roger Wilco ends up on the planet Xenon, and you're caught in a future world with the evil Vorhaul. Your mission is to save the future by traveling to the past.

Space Quest IV boasts 256-color animated VGA graphics and super sound, and its storyline includes depth, subtlety, and imagination that rival the best text-adventure games. And, thanks to Sierra's point-and-click interface, the mechanics take only a moment to master. Best of all, though, the game's funny. **See Reviews, November 1991, p. 59.**

SOUND BLASTER PRO

Creative Labs
2050 Duane Avenue
Santa Clara, CA 95054
(408) 986-1461

- **$299.95**
- **512K IBM PC, Tandy, or compatible**
- **DOS 2.0 or higher**
- **CGA, EGA, VGA, MCGA**
- **EGA or VGA recommended**

If you're looking for one good sound card, one that plays both Sound Blaster and AdLib scores, one that doesn't fry your other boards, one that never draws attention to itself, one that delivers all the sophisticated sound effects and music bundled into the latest batch of game software, Creative Labs' Sound Blaster Pro is for you.

At $299.95 it's not cheap, but neither are its features. It's quick to install, it's easy to use, and its frequency response is excellent. Another plus is the absence of the annoying background hiss that precedes some sound effects by a few seconds, killing the surprise. It even comes with a few games of its own. Nothing fancy — they're mainly for demonstration purposes, but they're entertaining just the same. In short, Sound Blaster Pro is a big winner. **See Reviews, November 1991, p. 60.**

MARTIAN DREAMS

Origin Systems
P.O. Box 161750
Austin, TX 78716
(800) 999-4939

- **$59.95**
- **IBM PC, Tandy, or compatible**
- **640K RAM (plus 256K expanded memory for music)**
- **10MHz or faster recommended**
- **256-color VGA, MCGA, EGA**
- **supports AdLib, Roland, Sound Blaster sound boards**
- **mouse recommended**

Martian Dreams asks for a leap of faith: Imagine life on the fourth planet. Imagine the leading thinkers and

celebrities of the Victorian era trapped on Mars, awaiting rescue. This is a first-rate role-playing game with an intriguing storyline, an easy-to-use interface, and outstanding graphics images and sound.

When you and your team of rescuers arrive on Mars, you'll find yourselves chatting with the likes of Thomas Edison, Madame Curie, Sarah Bernhardt, and William Randolph Hearst. But don't worry — Martian Dreams is no history lesson and there's plenty of combat with the natives. The game is whimsical, intelligent, in-depth, and compelling. It's worth the trip. **See Reviews, November 1991, p. 61.**

OVERLORD

Virgin Mastertronic
18001 Cowan Street
Suite A
Irvine, CA 92714
(714) 833-8710

- **$49.99**
- **IBM PC, Tandy, or compatible**
- **512K RAM (CGA, EGA, Tandy 16-color) 640K RAM (VGA)**
- **supports AdLib, Roland, Sound Blaster sound boards, Tandy sound**
- **mouse optional but recommended**

Running an interstellar empire is no picnic — especially in Overlord. This game pits you against one of four alien races and challenges your skills as planet manager and galactic warlord. You must lure a population, raise an army, and control energy, horticulture, and mining.

You play this strategic game on a series of interconnected screens, all controlled by a mouse-driven interface that requires no typing. More complex than intuitive, the interface integrates the game's many facets of play into one challenging whole. There are great graphics images, but it's a "screen chase" getting to them. Raising an empire from a lifeless chunk of interstellar rock allows for no mistakes. Playing Overlord isn't easy, but once you master it, it's fun. **See Reviews, November 1991, p. 63.**

CASTLES

Interplay Productions
3710 South Susan
Suite 100
Santa Ana, CA 92704
(714) 549-2411

- **$59.95**
- **IBM PC, Tandy, or compatible**
- **443K to 555K RAM**
- **DOS 2.1 or later**
- **CGA, EGA, Tandy 16-color, VGA, MCGA (256-color)**
- **supports AdLib, Sound Blaster, Innovation, Roland sound boards, Tandy sound**
- **mouse recommended**
- **off-disk copy protection**

Castles, an entertaining simulation that transforms your screen into a reproduction of the 13th-century Welsh countryside, brings the pageantry of the period to life. As king (or queen) of Albion, you employ artisans, smiths, diggers, carpenters, and other craftspeople to build castles in strategic locations along the northern frontier of your kingdom.

Castles is a unique program that attempts to involve you on several levels: as the castle's architect, the army's commander, and the land's ruler. It creates complex worlds and asks you to juggle dozens of details — so many, in fact, that you may find game play tedious. **See Reviews, November 1991, p. 64.**

HEADLINE HARRY AND THE GREAT PAPER RACE

Davidson & Associates
P.O. Box 2961
Torrance, CA 90509
(800) 545-7677

- **$49.95 (16-color), $59.95 (256-color)**
- **IBM PC, Tandy, or compatible**
- **512K RAM (16-color), 640K RAM (256-color)**
- **DOS 2.1 or later**
- **Hercules, CGA, EGA, VGA, MCGA, Tandy 16-color (16-color); VGA, MCGA (256-color)**
- **supports AdLib, Sound Blaster sound boards, Tandy, PS/1 sound**

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IBM Entertainment Specialists
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You and your kids can travel around the country without leaving the comfort of your chairs as you hunt down facts and dig up stories in Davidson's Headline Harry and the Great Paper Race. Along the way, you'll absorb U.S. history, geography, and culture and guffaw at clever one-liners and imaginative stories.

Headline Harry, unlike Carmen Sandiego games, focuses on actual events and demands that you piece together the who-what-when-where-why to develop a story. Random quizzes pop up to ask about history, geography, and culture — they keep you on your toes. After you collect the information and type a convincing headline, the program generates a well-written story you can read or print. **See Reviews, November 1991, p. 68.**

ARACHNOPHOBIA

Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360

- **$49.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM, 640K required for Tandy**
- **CGA, EGA, VGA, MCGA, Tandy 16-color**
- **supports Sound Source (640K required)**
- **off-disk copy protection**

Based on the popular spiderfest movie, Arachnophobia boosts the minor character of Delbert McClintock — arachnid-abatement technician extraordinaire — into a starring software role. Spiders are everywhere, and you have to squash 'em. Although it's no arcade classic, Arachnophobia is a cute tie-in to the movie.

As Delbert, you have the tools of the extermination trade at hand, from combat boots to bug bombs to toxic smog. Disney's Sound Source hardware enhances the arachnid experience. Arachnophobia calls more for patience than quick reflexes. If you're careful and take your time, you can wipe an entire spider town in one fell swoop. **See Reviews, November 1991, p. 71.**

CHUCK YEAGER'S AIR COMBAT

Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 or faster recommended**
- **CGA, EGA, MCGA, VGA**
- **supports AdLib, CMS, Covox Speech Thing, DAC, Sound Blaster sound boards**
- **off-disk copy protection**

Unlike many flight simulators, Chuck Yeager's Air Combat isn't based on a single aircraft or historical period. It revolves around the experiences of Chuck Yeager, ace fighter pilot and first man to crack the sound barrier. Yeager flew all the hottest fighters, and watched air combat evolve. With this game, so can you.

Air Combat sports all the usual flight simulator bells and whistles: multiple external and internal views, a slick VCR-style mission recorder, sound-card support, and great VGA graphics. The user interface is geared more toward fun and learning than technical nitpicking. Air Combat places a premium on skill and combat savvy. **See Reviews, November 1991, p. 72.**

ROTOX

U.S. Gold
550 South Winchester Blvd.
Suite 200
San Jose, CA 95128
(408) 985-1700

- **$39.95**
- **512K IBM PC, Tandy, or compatible**
- **CGA, EGA, VGA (16-color)**
- **off-disk copy protection**

Rotox is one of those arcade games that forces you to play just one more round. As a cyborg *Robocop*-like being, you cavort on ten increasingly difficult levels, each with nine areas. When creatures get in your way, you must vaporize them.

Although this arcade action may sound simple, Rotox includes all kinds of spicy variations on classic arcade themes. Your weapons become ever more deadly. The floors move under your feet. On each Rotox level, though, the bugs are in the same places. Although this may seem tiresome, you'll appreciate the depth of strategy it allows. **See Reviews, November 1991, p. 74.**

FALCON 3.0

Spectrum HoloByte
2061 Challenger Drive
Alameda, CA 94501
(415) 522-0107

- **$69.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 minimum**
- **EGA, VGA**
- **supports AdLib, Sound Blaster, Roland sound boards, Tandy sound**
- **requires hard-disk drive**

The computer-game company that developed desktop F-16 simulators for the U.S. Air Force has brought that experience back to a game. Falcon 3.0 is the most detailed and accurate jet-combat simulator ever put on a PC.

The plot may not win any awards, but this game has taken the game industry by storm. From the *Instant Action* mode that lets you jump right into battle to the *Campaign* mode that combines personal performance with squadron-management techniques, this is one hot package. Add a math coprocessor (optional) and you can pilot a flight model that's only a hair's-breadth away from being classified. Falcon 3.0 is certain to offer something for every air-combat sim fan. **See Sneak Peeks, December 1991, p. 53.**

PRO TENNIS TOUR II

UbiSoft/Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171

- **$49.95**
- **512K IBM PC, Tandy, or compatible**
- **Hercules, CGA, EGA, VGA, Tandy 16-color**
- **joystick recommended**
- **off-disk copy protection**

Tennis is in a time warp — the champions just keep getting younger and younger. Luckily for us, we don't have to chase after those clay-court kids in real life. Pro Tennis Tour II offers you the thrills of tennis without a bead of sweat.

UbiSoft loads Pro Tennis Tour II with statistics and options, including individual player strengths and weaknesses, different court surfaces and tournament schedules, and varying computer ability. The company didn't sacrifice a whit of enjoyable action, though. This game will go easy on your knees, but leave your fingers tingling. **See Sneak Peeks, December 1991, p. 54.**

GUNSHIP 2000

MicroProse Software
180 Lakefront Drive
Hunt Valley, MD 21030
(301) 771-1151

- **$69.95**
- **640K IBM AT, XT, or compatible**
- **MCGA, VGA**
- **requires hard-disk drive**
- **joystick recommended**
- **manual copy protection**

If you've been holding off on purchasing a flight simulator because buzzing around in a two-winged bathtub just wasn't your style, pull out your wallet. MicroProse's Gunship 2000 demands a fast PC, but the ride is worth the price.

Whether you're flying an Apache gunship on search-and-patrol or leading a squadron of Blackhawks into a hot LZ, you'll have your hands full just keeping your bird in the air. The ultimate goal is to just stay alive.

Attention to detail makes this a great simulation, and non-stop action makes it a great game. Detailed cockpit gauges keep you informed of your progress and damage. And after each successful mission, you can watch a replay of the action. With additional scenario/location disks in the works, there's no telling where the next campaign may take you. **See Sneak Peeks, December 1991, p. 56.**

A-10 TANK KILLER 1.5

Dynamix/Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- **$59.95, $20 update from 1.0**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 or faster**
- **CGA, EGA, MCGA, VGA**
- **supports AdLib, Sound Blaster, Roland MT-32, PS/1 sound boards**
- **hard-disk drive recommended**

This new-and-improved version of A-10 Tank Killer lets you strap on America's premier ground-attack aircraft and mix it up, up close and personal. Dynamix did a good job re-creating the combat world of an A-10 pilot. You spend most of your time down on the deck, flying low and slow, where there's little room for error.

The simulation needs plenty of PC horsepower to make it go, but if you're looking for air-to-ground aircraft action, A-10 is it. There's not much room for fancy flying, just for smooth handling and quick reaction. Just remember: At a hundred feet, things happen fast — you sneeze, you die. **See Reviews, December 1991, p. 59.**

MICKEY'S JIGSAW PUZZLES

Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 567-5360

- **$49.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM (CGA, EGA, Tandy 16-color), 640K RAM (256-color VGA)**
- **supports AdLib, IBM PS/1 Audio Card, Sound Blaster, Sound Source boards, Tandy 3-voice sound**

Kids love puzzles. Maybe that's because the scattered pieces magically form a surprise picture. Or maybe they just like to put things together. When the 15 puzzles featuring Mickey, Minnie, Donald, and Goofy are complete in Mickey's Jigsaw Puzzles, they move, shake, animate, and play music.

Kids can even color printouts of the puzzle pictures. True, there are no pieces to actually touch — a big part of puzzle play for anyone — but that means you won't ever lose one, either. You can also adjust the size of the pieces easily — big ones for tots and smaller ones for the older crowd. **See Reviews, December 1991, p. 60.**

MIGHT AND MAGIC III

New World Computing
20301 Ventura Blvd.
Suite 200
Woodland Hills, CA 91364
(818) 999-0606

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **EGA, VGA, Tandy 16-color**
- **supports AdLib, Sound Blaster sound boards, Tandy 3-voice sound**

Some dungeons just don't get no respect. That's certainly been true for John Van Canegham's excellent Might and Magic fantasy role-playing series, which never received as much credit as was due. Might and Magic III is simply the best fantasy role-playing game to date, bar none.

Richly illustrated, with an elegantly simple graphics interface, this isn't just another kill-the-ultimate-bad-guy plot. In fact, you'll probably be thankful for the fantastic end-game sequence that explains the twists in the story line. As far as first-person fantasy role-playing games go, Might and Magic III is state-of-the-art entertainment. **See Reviews, December 1991, p. 62.**

MIXED-UP MOTHER GOOSE CD-ROM

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(209) 683-4468

- **$59.95**
- **IBM PC, Tandy, or compatible (286 or faster)**
- **CD-ROM drive**
- **VGA, MCGA**
- **supports AdLib, Disney Sound Source, Roland MT-32/LAPC-I/CM-32L, Sound Blaster, Tandy DAC sound boards**
- **mouse or joystick optional**

This is a really big fairy tale. Packed on a CD-ROM disc, Mixed-Up Mother Goose sends young children to Mother Goose Land, where they help 18 popular nursery-rhyme characters find the missing pieces to their rhymes. Little Miss Muffet has lost her tuffet, Bo Peep her sheep, Jack Be Nimble his candle, and Humpty Dumpty his ladder.

Setting up the CD-ROM version of Mother Goose is no job for Simple Simon, but the game is easy to play. There are no confusing keyboard commands to memorize or instructions to read. Children are left on their own to solve the mysteries at their own pace, without any time pressures to beat. If this is a peek at the future of PC games, it's a future well worth grabbing. **See Reviews, December 1991, p. 64.**

TRUMP CASTLE II

Capstone/Intracorp
14202 Southwest 136th Street
Miami, FL 33186
(800) 468-7226

- **$49.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM (CGA, EGA, Tandy)**
  640K RAM (VGA, MCGA)
- **DOS 2.1 or later**
- **CGA, EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, Sound Blaster sound boards**
- **mouse or joystick optional**
- **off-disk copy protection**

Place your bets. Play alone or with up to four friends. Gamble to win or sharpen your betting skills with multiple-hand strategies. You can do it all without laying a dime on the green felt.

You don't need to leave home to hob-nob when you gamble for high stakes in Trump Castle II. This entertaining computer simulation (modeled after the real action at Trump Castle Casino Resort) offers six popular casino games. With a bit of luck, you may be the one to break the bank at baccarat, blackjack, craps, roulette, slots, or video poker. **See Reviews, December 1991, p. 68.**

PICK'N PILE

UbiSoft /Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171

- **$39.95**
- **512K IBM PC, Tandy, or compatible**
- **DOS 3.2 or later**
- **CGA, EGA, VGA, Tandy 16-color**
- **supports AdLib sound board**
- **mouse recommended**

"Out, damned spot!" cries the sleepwalking Lady Macbeth in Shakespeare's play. Of course, the Bard was writing about guilt and ambition, not computer games. But if you get started with Pick'n Pile, you'll soon be echoing the lunatic lady's cry. Pick'n Pile fills your screen with colorful cascading balls, which you must eliminate before the screen explodes. This game is similar in style to Tetris, the shape-placing Russian arcade game. With first-rate action, nice graphics, and a can't-put-it-down attitude, Pick'n Pile follows in Tetris' steps, but certainly doesn't break any new ground. **See Reviews, December 1991, p. 70.**

LOGITECH MOUSEMAN CORDLESS RADIO MOUSE

Logitech, Inc.
6505 Kaiser Drive
Fremont, CA 94555
(800) 231-7717

- **$159**

The problem with mice is that their tails get in the way. Enter Logitech's Mouseman Cordless Radio Mouse. Radio Mouse comes with a small receiver box that attaches to your serial port. It installs easily and requires only a few minor adjustments. A single lithium battery powers the signal that communicates between mouse and receiver. It's a good idea that works well, but it's hampered by hefty memory requirements, a right-handed-only orientation, and a signal that drifts away from its frequency. **See Reviews, December 1991, p. 72.**

WORDTRIS

Spectrum HoloByte
2061 Challenger Drive
Alameda, CA 94501
(415) 522-3584

- **$39.95**
- **640K IBM PC, Tandy, or compatible**
- **CGA, EGA, VGA**
- **mouse or joystick optional**
- **modem play optional with 1200- or 2400-baud Hayes-compatible modem**
- **off-disk copy protection**

Boot up Wordtris and get ready to fumble with falling pieces and curse the laws of gravity again. Think of this game as "Tetris Meets Scrabble," and you've got it pinned down. Wordtris features letters as falling puzzle pieces; the object is to create words, not to fill up space.

Wordtris is even educational. Not only are spatial and thinking skills required, but the game also demands fast spelling and a deep vocabulary. More importantly for fun on the PC, though, is that it still bears one striking resemblance to its daddy, Tetris — Wordtris is a blast to play. **See Reviews, December 1991, p. 74.**

CYBERNETIC RANGER

Symtus
P.O. Box 912
Palacios, TX 77465
(800) 255-2374

- **$49.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz or faster**
- **EGA, VGA, MCGA**
- **supports AdLib, Roland, Sound Blaster sound boards**
- **joystick optional**
- **requires hard-disk drive**

Cybernetic Ranger stuffs video-arcade speed and smoothness into your PC. Unfortunately, that's about all it sticks inside your computer. For all its stunning looks, Cybernetic Ranger simply shows better than it plays.

Finely wrought graphics touches are everywhere, yet that anticipated greatness never arrives. Portions of Ranger

seem curiously haphazard and ill-considered. For an IBM arcade game, Cybernetic Ranger isn't bad, and in terms of invention and subtle beauty, it's better than many. It simply hasn't been fine-tuned enough to make it more than a game with a pretty face. **See Reviews, December 1991, p. 76.**

MEGATRAVELLER 2: THE QUEST FOR THE ANCIENTS

Paragon Software/MicroProse
180 Lakefront Drive
Hunt Valley, MD 21030
(301) 771-1151

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, Sound Blaster, Sound Master, Roland sound boards**
- **joystick, mouse optional**

Here's a role-playing game with the depth of a mine shaft. People act like people, and adventures are more than Easter-egg hunts in toy piles. In MegaTraveller 2, common sense prevails. This extends to the PAL system, in which your characters respond to situations as befits their talents. It spares you the numbing number work — but, more important, makes you feel as though you're dealing with intact, sensible personalities, not simply a set of mindless drones. MegaTraveller 2 isn't just more like role-playing than the typical computer role-playing game. It's more fun. **See Reviews, December 1991, p. 78.**

READER RABBIT 2

The Learning Company
6493 Kaiser Drive
Fremont, CA 94555
(800) 852-2255

- **$59.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM, 640K RAM for Tandy 1000**
- **DOS 2.0 or later**
- **CGA, EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, Sound Blaster, Roland sound boards**
- **mouse optional**

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GUARANTEE: Most *BSG* programs were supplied direct from authors (latest versions available in 1992). Briter Inc. will replace defective media within 30 days after purchase, but no later than 3/31/93 ($1/disk P&H).

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3. Registration entitles the user to various rights and benefits that vary by author. These range from the legal right to continue using the software, to printed documentation and/or higher levels of service.

Send check/MO payable to "Briter Inc." to:
Briter Inc.
14 Rolling Rd, Dept. BSG
Wynnewood, PA 19096-3521

Mix imagination and education and you've got the same recipe for software success that The Learning Company cooked up years ago. Reader Rabbit 2, for kids aged 5 to 8, brings back the rabbit that winks, jumps for joy, and generally encourages kids as they master reading skills.

Reader Rabbit 2 takes kids to *Wordville*, where they choose a game destination such as *Word Mine*, *Vowel Pond*, or the *Alphabet Dance*. You could dismiss this software as just another drill-and-practice program if it weren't for its charming, full-color animation and delightful sound effects. Reader Rabbit 2 blends fun and learning in a setting that grabs kids' attention. **See Reviews, December 1991, p. 84.**

SECRET WEAPONS OF THE LUFTWAFFE

LucasFilm Games
P.O. Box 10307
San Rafael, CA 94912
(415) 721-3300

- **$69.95**
- **IBM PC, Tandy, or compatible**
- **80286 or faster, 640K RAM (768K for Tandy)**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, Sound Blaster sound boards**
- **mouse or joystick recommended**
- **hard-disk drive recommended**

What if? Those two words let you play with what-never-was, live in alternate worlds, and spot the crucial junctions of time. What if Europeans had been booted out of the New World? What if German aeronautic engineers had sidestepped the blunders of the Nazi high command in time to put the world's most advanced combat aircraft into the skies to go up against the Allied air armada? Would the Third Reich have survived?

LucasFilm's Secret Weapons of the Luftwaffe takes you on this what-if trip, putting you in charge of the daylight air campaign over Europe and letting you fly any of eight combat aircraft. Despite an "iffy" flight simulator, Secret Weapons works as an entertaining historical simulator. **See Reviews, December 1991, p. 85.**

MARTIAN MEMORANDUM

Access Software
4910 West Amelia Earhart Drive
Salt Lake City, UT 84116
(801) 359-2900

- **$59.95**
- **530K IBM PC, Tandy, or compatible**
- **DOS 3.2**
- **VGA, MCGA**
- **requires hard-disk drive**
- **supports Sound Blaster, AdLib, Roland, IBM Speech, MSound, RealSound sound boards**

If you're something of a mystery buff, try Martian Memorandum on for size. In addition to an intriguing storyline, Martian Memorandum features slick-looking graphics images and top-notch sounds. The lush backgrounds are postcard perfect, and the other locales, including the Martian landscapes, are similarly picturesque. All characters are digitized images of real actors. They speak their lines in digitized voice synchronized with full-motion video. Loaded with deductive brain benders, dialogue, mayhem, dry puns, and painfully humorous private-investigator clichés, Martian Memorandum is a solid interactive mystery game. It's definitely a case worth investigating. **See Reviews, December 1991, p. 87.**

TONY LARUSSA'S ULTIMATE BASEBALL

Strategic Simulations Inc.
675 Almanor Avenue
Suite 201
Sunnyvale, CA 94086-2901
(408) 737-6800

- **$49.95**
- **640K IBM PC AT, PS/2, Tandy, or compatible**
- **10MHz AT or faster recommended**
- **VGA, EGA, MCGA**
- **requires hard-disk drive and high-density 1.2MB disk drive (also available on 3.5-inch 720K disks)**
- **supports AdLib, Sound Blaster, Roland sound cards**
- **off-disk copy protection**

When the digitized voice in Tony LaRussa's Ultimate Baseball cries, "Play ball!" this game draws a crowd. After all, it offers an addicting mix of arcade action, managerial strategy, and even baseball history. (The teams give you a fascinating mix of players from different eras.) Ultimate Baseball's arcade aspect is challenging, but not impossible to master. Its unique approach to fielding is commendable. (To make judging and catching a fly ball easier, a spotlight appears where the ball will land. The higher the ball is hit, the larger the spotlight.) An accessible and consistent interface lets you explore a variety of managerial options easily. This game just has that baseball "feel." **See Reviews, December 1991, p. 88.**

THE GAMES: WINTER CHALLENGE

Accolade
550 South Winchester Blvd.
San Jose, CA 95128
(408) 985-1700

- **$54.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 or faster recommended**
- **EGA, VGA, MCGA, Tandy 16-color**
- **requires hard-disk drive**
- **supports AdLib, Roland MT-32/LAPC-1, Sound Blaster, Thunder Board sound boards, Tandy sound**
- **joystick recommended**

Relive the excitement of the 1992 Winter Olympics with The Games: Winter Challenge. Featuring 256-color VGA graphics, digital sound, digitized bit-mapped images, and 3D realism, this game brings the action of bobsled, luge, cross-country skiing, speed skating, ski jumping, giant slalom, downhill, and biathlon to your PC screen.

The action is incredibly realistic. The program uses material that's been captured digitally from live-video footage. There's even an athlete's-eye view that makes you feel like a participant. The crash sequences add to this "you are there" feeling. But as in real athletics, mastering these events takes a lot of practice. **See Sneak Peeks, January/February 1992, p. 43.**

L'EMPEREUR

Koei Corp.
One Bay Plaza
Suite 540
1350 Bayshore Highway
Burlingame, CA 94010
(415) 348-0200

- $59.95
- 640K IBM PC, Tandy, or compatible
- DOS 2.0 or later
- EGA, VGA, MCGA
- supports AdLib sound board, mouse

Want to replay a bit of history? Boot up L'Empereur and step into Bonaparte's boots. In this simulation you'll deal with rebellious peasants, epidemics, enemy embargos and alliances, and poorly trained, disloyal troops.

With such a broad subject as the Napoleonic period, Koei can be excused for sacrificing history on the battlefield in favor of a bold, vivid portrait of waging war in all its political, economic, and human complexity. The only problem with L'Empereur is that the computer players gradually build up huge forces, creating a stalemate-like scenario. **See Sneak Peeks, January/February 1992, p. 44.**

CASTLE OF DR. BRAIN

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
(800) 326-6654

- $49.95
- 640K IBM PC, Tandy, or compatible (286 or higher)
- VGA, MCGA (256-color)
- supports AdLib, Pro AudioSpectrum, PS/1, Roland MT-32/LAPC-I/CM-32L, Sound Blaster, Thunder Board sound boards
- mouse or joystick recommended
- off-disk copy protection

If you're a kid 10 years old and up, or just a kid at heart who enjoys gray-matter gymnastics, animated 256-color graphics, and weird synthesized music, you're going to love taking a tour through Castle of Dr. Brain.

You won't find any drill-and-practice software stuff, here. Dr. Brain's castle comes packed with a slew of mental-muscle builders. It'll convince you that jazzing up logical-thinking and skill-building activities with a dose of craziness is easy. **See Sneak Peeks, January/February 1992, p. 46.**

MONKEY ISLAND II: LECHUCK'S REVENGE

LucasFilm Games
P.O. Box 10307
San Rafael, CA 94912
(800) 782-7927

- $59.95
- 640K IBM PC, Tandy, or compatible
- VGA
- requires hard-disk drive
- supports AdLib, Roland, Sound Blaster sound boards

If you thought Secret of Monkey Island was a barrel of laughs, just wait 'til you see Monkey Island II: LeChuck's Revenge. In this sequel, Guybrush Threepwood hands over the stuff from which LeChuck will be restored, and once again starts the fun.

The designer's willingness to make fun of anything and his exquisite sense of timing make this game a winner. The screens seem on fire with color, and the animation and scrolling are fluid. It's as friendly as LucasFilm's point-and-click adventure-game system. But the greatest achievement is that the company has created a game, a bizarre little universe, that somehow works. **See Sneak Peeks, January/February 1992, p. 48.**

SUPER SOLVERS SPELLBOUND

The Learning Company
6493 Kaiser Drive
Fremont, CA 94555
(800) 852-2255

- $49.95
- IBM PC, Tandy, or compatible
- 512K RAM (640K for Tandy)
- DOS 2.0 or later
- CGA, EGA, VGA, MCGA, Tandy 16-color
- supports AdLib, Roland, Sound Blaster sound boards
- mouse optional

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How can kids find fun in spelling? That's easy — with Super Solvers Spellbound. This game is The Learning Company's effort to inject some fun into this vital (if unexciting) skill.

If you're looking for the arcade-like action that's marked the Super Solvers games, though, Spellbound will be disappointing. It includes some animated action, but it's minimal and doesn't add much to the game. What you do get are three traditional word games and a partially digitized spelling bee that any PC can voice. Spellbound teaches that learning can be fun, no matter what the subject. **See Sneak Peeks, January/February 1992, p. 51.**

4D BOXING

Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171

- **$49.95**
- **640K IBM PC, Tandy, or compatible**
- **CGA, EGA, VGA, MCGA**
- **supports AdLib, Roland, Sound Blaster sound boards, Tandy sound**
- **hard-disk drive recommended**
- **joystick optional**

"Great boxers are made, not born." That saying certainly applies to 4D Boxing. Its gym is a fighter factory, a talent scout's dream. Here you engineer your boxer by setting weight, height, speed, stamina, and power characteristics. You can even mold boxers from either sex.

Once you get past the blocky look of the boxers — they look like Picasso-inspired humanoids, all triangles and squares — 4D Boxing is first-rate PC fisticuffs. After all, it's an action-packed game. Its animation — based on the same sort of filled-polygon graphics images found in flight simulators — is striking as it mimics human motion. A technical knockout, 4D Boxing is the first boxing game that qualifies more as a simulation than as an arcade game. **See Reviews, January/February 1992, p. 57.**

NINJA GAIDEN II: THE DARK SWORD OF CHAOS

Gametek
2999 NE 19th Street #800
North Miami Beach, FL 33180
(305) 935-3995

- **$39.95**
- **IBM PC, Tandy, or compatible**
- **512K RAM (640K for MCGA)**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, CMS Sound Master, Covox, Roland LAPC-1, Sound Blaster sound boards, Tandy sound**
- **joystick recommended**
- **no copy protection**

Ninja Gaiden II: The Dark Sword of Chaos fits the best arcade tradition — mindless violence, fast action, and addictive replay. You control a ninja as he seeks revenge for his father's murder.

Action occurs across seven levels, each divided into two or three stages. The last stage on each level is a knock-down, one-on-one fight against a monstrous creature. In this game, victory belongs to the quick. The faster you punch a key or whip around the joystick, the better. **See Reviews, January/February 1992, p. 58.**

EARL WEAVER BASEBALL II

Electronic Arts
1450 Fashion Island Blvd.
San Mateo, CA 94404
(415) 571-7171

- **$49.95, $29.95 Commissioner's Disk II, $19.95 1990 MLBPA Player Stats & Manager Profiles Disk**
- **IBM PC, Tandy, or compatible**
- **512K RAM (640K for Tandy)**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, Roland sound boards**
- **joystick optional**
- **off-disk copy protection**

If you're one of those fans who can't wait for the opening day of baseball season, boot up Earl Weaver Baseball II. It can put you on the field even in the dead of winter. With an impressive slate of features and a realistic view of the ballpark, this game bats 1000.

If that's good news, you'll think the Commissioner's Disk II, an add-on that works with Earl Weaver II, is a baseball nut's dream. With it you can edit teams and players, change schedules, create ballparks, and more. If you're a hard-core stats addict, the 1990 MLBPA Player Stats & Manager Profiles Disk, another add-on, will be your joy. **See Reviews, January/February 1992, p. 59.**

HARE RAISING HAVOC

Walt Disney Computer Software
500 South Buena Vista Street
Burbank, CA 91521
(818) 841-3326

- **$49.95, $69.95 with Sound Source**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 or better recommended**
- **CGA, EGA, VGA, Tandy 16-color**
- **supports IBM PS/1 Audio Card, Sound Blaster, Tandy sound, Sound Source**

Roger Rabbit's up to his ears in trouble in Hare Raising Havoc, a game that will enthrall everyone in the family with its excellent cartoon-like graphics images and outstanding sound effects. The plot is vintage Roger Rabbit. Mommy leaves the house and lets Roger watch Baby Herman. As soon as she's away, though, the infant takes off. Roger must get through a series of puzzles and find the baby before Mom gets back. To do well in this game you've got to think like a toon. Make Roger smash himself to squeeze through a tiny space, for example. Hare Raising Havoc is good, crazy fun. **See Reviews, January/February 1992, p. 61.**

FLIGHTSTICK & MACH III

CH Products
970 Park Center Drive
Vista, CA 92083
(619) 598-2518

- **$79.95 Flightstick/IBM PC or compatible**
- **$74.95 Flightstick/Tandy**
- **$49.95 Mach III**
- **IBM PC, Tandy, or compatible**
- **requires game port**

CH Products' Flightstick is a smooth joystick that's set on a hefty square base that doesn't wobble or slide around. Your trigger finger controls the main guns in a combat flight simulator, while the function of the second button on top of the stick depends on the game — it often fires your secondary weapons.

When you're playing arcade games that require faster moves at more intense angles, you need a shorter stick with more buttons, such as the Mach III. It has two fire buttons on the base and another on top of the stick. The Mach III even lets you turn off the automatic return to center, so that you can use free-floating mode. **See Reviews, January/ February 1992, p. 62.**

WEAPONS CONTROL SYSTEM & FLIGHT CONTROL SYSTEM

Thrustmaster
705 Southwest Ellis
Lake Oswego, OR 97034
(503) 697-3200

- **$99.95 Weapons Control System**
- **$99.95 Flight Control System**
- **IBM PC, Tandy, or compatible**
- **Weapons Control System/AT or higher**

If you're a hard-core simulator fan who's tired of punching the wrong key while trying to fire a rocket, Thrustmaster's Weapons Control System is the joystick for you. After you plug this device into the keyboard input on your computer and attach the keyboard to the stick, you can fly the plane with the joystick in your right hand and work the guns and rockets with your left. You can also move the stick forward or backward to control the throttle.

Thrustmaster also makes the Flight Control System. Besides a trigger-style fire button, four more buttons are on board. You can even maneuver the cone-shaped button on top of the stick like a tiny second joystick. At this time, however, game developers don't support this product widely. **See Reviews, January/ February 1992, p. 62.**

LEISURE SUIT LARRY 5

Sierra On-Line
P.O. 485
Coarsegold, CA 93614
(209) 683-4468

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **10MHz 286 or faster recommended**
- **EGA, VGA**
- **supports AdLib, Roland, Sound Blaster sound boards**

Ready for some tasteless fun? Take a trip with Larry Laffer in Leisure Suit Larry 5. As Larry Laffer, a consummate geek who works for a porno-entertainment company, you are chosen to "test" the hottest women in the "America's Sexiest Home Video" contest. As Patti, a musical entertainer hired by the FBI, your job is to expose the mastermind sleazeball behind this quest for babes. The jokes are truly tasteless and the characters are out of a soft-porn film, but the action is strictly PG-13. Larry 5 sports beautiful 256-color VGA illustrations, smooth animation, and a likable sound track. And best of all, it's easy to play. **See Reviews, January/February 1992, p. 63.**

NIGEL'S WORLD

Lawrence Productions
1800 South 35th Street
Galesburg, MI 49053-9687

- **$49.95**
- **IBM PC, Tandy, or compatible**
- **500K free RAM (slightly less without optional sound board)**
- **DOS 3.0 or later**
- **VGA, MCGA**
- **supports AdLib, Sound Blaster sound boards**
- **requires hard-disk drive with at least 3.6MB of free space, one 720K 3.5-inch drive, or one 1.2MB 5.25-inch drive**
- **supports mouse**
- **no copy protection**

In Nigel's World kids become Nigel, a Scotsman who explores the globe snapping photos. Although this game

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is easy to play, geography lessons and game play don't quite measure up to the competition's. It presents a variety of facts about faraway places, but so does a conventional geography textbook. If the idea is to make learning fun, software must be sufficiently intriguing to get kids playing. Nigel's World isn't. **See Reviews, January/ February 1992, p. 66.**

BACK TO THE FUTURE III

Konami, Inc.
900 Deerfield Parkway
Buffalo Grove, IL 60089
(708) 215-5111

- **$39.95**
- **640K IBM PC, Tandy, or compatible**
- **CGA, EGA, VGA, Tandy 16-color**
- **supports AdLib, Roland sound boards, Tandy sound**
- **joystick recommended**
- **off-disk copy protection**

Marty McFly, the extraordinary time traveler of the cinematic *Back to the Future* trilogy, has made it to the computer screen in Back to the Future III. This game doesn't hold any surprises, but it's irresistible fun for anyone hooked on saving damsels in distress and having shoot-outs with bad guys.

As Marty you've got to take the time-traveling DeLorean back to 1885 to save Doc Brown, the scientist who started the whole adventure when he assembled the souped-up coupé. The game mimics the movie, except you have more chances for success. **See Reviews, January/ February 1992, p. 68.**

CONAN THE CIMMERIAN

Virgin Mastertronic
18061 Fitch Avenue
Irvine, CA 92714
(714) 833-8710

- **$49.99**
- **640K IBM, Tandy, or compatible**
- **10MHz or faster recommended**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports AdLib, CMS, Covox, Roland, Sound Blaster sound boards, Tandy sound**
- **hard-disk drive and mouse recommended, joystick optional**

Conan the Cimmerian takes arcade role-playing to new heights of beauty and depths of realism. Although the storyline is simple — Conan seeks revenge against the raiders who leveled his village and killed his wife — a trip to its cities will be unlike anything you've experienced before.

The city of Shadizar mimics the size of real life — it comes complete with narrow dead-end lanes, ragtag bazaar stalls, high-rise temples, and more. The interiors have been built so seamlessly that the rooms look as if they were designed individually. Although Conan isn't perfect — the game needs a more sophisticated combat sequence — you shouldn't pass it up. **See Reviews, January/ February 1992, p. 70.**

F-117A NIGHTHAWK STEALTH FIGHTER

MicroProse Software
180 Lakefront Drive
Hunt Valley, MD 21030
(301) 771-1151

- **$79.95 VGA, $69.95 EGA**
- **640K IBM PC, Tandy, or compatible**
- **16MHz 286 or faster**
- **EGA, VGA**
- **supports AdLib, Roland sound boards**
- **joystick, mouse optional**

It's time for take-off with F-117A Nighthawk Stealth Fighter. But be careful — this game doesn't just take over the computer, it takes over the computer pilot, too. After all, this game really flies.

F-117A's display is crisp — VGA lends the simulator a particular solidness — and the screen updates are amazingly fast. Most of the missions are at night, something else that ratchets the game's realism up another notch. Even the world that flows beneath your advanced aircraft is rendered in astonishing detail, down to the warning lights atop radio antennae. Boot up this game and you'll quickly forget that it's not really dusk in Dhahran, Saudi Arabia. **See Reviews, January/February 1992, p. 74.**

SPELLCASTING 201: THE SORCERER'S APPLIANCE

Legend Entertainment Company
14200 Park Meadow Drive
Chantilly, VA 22021
(703) 222-8500

- **$69.95**
- **512K IBM PC, Tandy, or compatible**
- **EGA, VGA (hi-res 16-color), CGA, MCGA, Tandy 16-color (hi-res black-and-white)**
- **supports AdLib, Roland, Sound Blaster sound boards, RealSound**
- **requires hard-disk drive**
- **mouse recommended**

Grab your pens, texts, and spell books as you rejoin Ernie Eaglebeak for Spellcasting 201: The Sorcerer's Appliance, at good ol' Sorcerer U. In this wild and wildly funny graphics adventure, Ernie encounters a vindictive pledgemaster who dons a ceremonial chicken suit and burdens our hero with impossible tasks. Fortunately, Ernie gets help from the woman of his dreams — whom he creates with the aid of the Sorcerer's Appliance. It's lively, clever, and silly, with both nice (G-rated) and naughty (R-rated) modes.

Don't be fooled, though: Spellcasting 201 is fun, but it isn't easy. The humor is completely incidental to completing some of the hardest puzzles this side of the Sphinx. Sorcerer U makes sure you get quite an education. **See Reviews, January/ February 1992, p. 76.**

THE TREEHOUSE

Broderbund Software
500 Redwood Blvd.
P.O. Box 6121
Novato, CA 94948-6121
(800) 521-6263

- **$59.95**
- **640K IBM PC, Tandy, or compatible**
- **DOS 3.0 or later**
- **EGA, VGA, MCGA, Tandy 16-color**
- **supports Sound Blaster, Sound Source sound boards**
- **requires hard-disk drive with 3MB free**
- **off-disk copy protection**

If you want your kids to have fun while learning, let them climb into The Treehouse. This game encourages children aged 6 to 10 to poke around an imaginatively bedecked clubhouse where learning opportunities abound. Like all great software for children, the Treehouse offers youngsters the best of both educational and entertainment worlds.

With activities such as *Treehouse Theater*, *Animal Album*, and *Musical Maze*, children can animate and print scenes in a play's script, classify an assortment of animals, and write songs. Full-color animated, age-appropriate graphics images make the software a joy to use. To enjoy The Treehouse in all its glory, though, you need a sound card, something the package regrettably doesn't even mention. **See Reviews, January/February 1992, p. 78.**

WESTERN FRONT

Strategic Simulations
675 Almanor Avenue
Sunnyvale, CA 94086
(408) 737-6800

- **$59.95**
- **560K IBM PC, Tandy, or compatible**
- **EGA, VGA**
- **requires two floppy-disk drives or hard-disk drive with 940K free**
- **supports mouse**

Western Front, a grand-scale strategic war game, is a supply-line simulation that challenges your leadership abilities in the four major Western European campaigns of World War II. Based on the successful Second Front game system, Western Front punishes anyone who dares a frontal assault, and rewards those who cut off the enemy's supplies while protecting and extending his or her own.

As supreme commander, you give the orders all the way down to individual squads of infantry, tanks, and aircraft. This game may be about combat management, not combat, but that's what really won the war. **See Reviews, January/February 1992, p. 80.** ❑

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MAILBAG

13 and Cynical

I'm 13 years old and own a Tandy 1000RL with a 40MB hard drive. I can't keep up with the computer world; every few months something new comes out. I'd like to know what system would keep me from having to buy another one in two years.

Clay Logue
175 North Church Avenue
Fort Meade, FL 33841

Whether you're 13 or 33, advances in the computer world can be as frustrating as they are exciting. Most computers you buy today probably won't accommodate every technology — or satisfy all your needs — a few years from now. We do have a couple of recommendations, though. First, if you can afford one, add a CD-ROM drive to your system. Second, when you do buy a new computer, get as much speed and storage as you can afford, even if you think you don't need it yet.

Name Your Frequency

Will you please increase the frequency of your magazine? I'm dying to see reviews of new games, and I can't wait until summer. Also, my friends want copies of *PCGames*. I bought the last available issue on the shelves. They'd like to get subscriptions, but they can't find the price or where to send the payment. Also, would you do a review of **The Adventures of Willy Beamish** and **The Laffer Utilities 4.0**?

Brad Divine
31011 Paseo Boscana
San Juan Capistrano, CA 92675

In PCGames' *case, both size and frequency are closely related to sales of entertainment software. (That is, as the market goes, so goes* PCGames.*) We plan issues to coincide with when people traditionally buy games. Since* PCGames *currently isn't offered on a subscription basis, you'll have to keep your eye on the newsstand. As for reviews, The Adventures of Willie Beamish appeared as a Sneak Peak in the November 1991 issue (p. 44), and you'll find The Laffer Utilities on p. 130 of this issue.*

Full of Ideas

I'm interested in computer games and would like to know more about becoming a computer-game designer. I want to be the person who thinks up the new ideas for games, but I want nothing to do with the programming end. I have many stories I feel could become computer games.

John Mascia
4067 Dijon Drive
Orlando, FL 32808

For information about becoming a game designer, we suggest you contact the ***Computer Game Developers Conference****, 5339 Prospect Road, Suite 289, San Jose, CA 95129-5020, (408) 374-4340.*

A Hit in Poland

My name is Slawomir Jaworski. I'm a technical-school pupil. I live in Poland and I'm 19 years old. My hobbies are computers, astronomy, and English.

I have an IBM PC/AT 386. I'm not professional yet, but I have a good time working on the computer. I spend most of my money on software. I love to read your magazine. In my opinion, *PCGames* is great.

Your magazine is becoming more and more popular here, but it's difficult to find. I have a big favor to ask of you. Please send me information on the IBM PC and a few issues of *PCGames*. I know it's bound to be expensive. If you can do it, I'd be delighted. Kind regards to you all.

Slawomir Jaworski
ul. Roosevelta 4/5
50-236 Wroclaw
Poland

We're always happy to hear from computer enthusiasts who enjoy reading PCGames. *Your letter is representative of several we've received from Poland. We hope you enjoy the complimentary issues.*

Off We Go

Which flight simulators do you think are the best on the market? There are so many — **Falcon 3.0**, **Chuck Yeager's Air Combat**, **Red Baron**, and so on.

Jason Chai-Seong
95 Leander Street
Branpton, Ontario
L6S 3N6
Canada

You're right — there are a lot of flight simulators on the market. The three you mention are all good choices; the preferences of the "pilot" determine which is best. Before you buy, we suggest you read Top Gun in this issue, p. 18, a Sneak Peak at Falcon 3.0 (December 1991, p. 53), and reviews of Chuck Yeager's Air Combat (November 1991, p. 72) and Red Baron (October 1991, p. 70).

Build a Better Joystick

In writing this letter on virtual flight reality (arcade air games versus true simulations), I'd like to offer the following suggestion to those individuals who, like me, won't settle for anything but "virtual realism" in flight.

A few months ago, I purchased Thrustmaster's **Weapons Control**

System and **Flight Control System**. Although I anxiously awaited **Falcon 3.0**'s release, I set the throttle and stick and used them for various other flight games I had on hand.

The Control System works flawlessly and gives a true sense of H.O.T.S. (hands on throttle and stick) flying. Over time, however, while still waiting for the Falcon 3.0 release, the flightstick started to show signs of wear and developed a sloppy gap within the plastic bushings Thrustmaster uses. I contacted Thrustmaster only to learn that the flightstick has no adjustments. I was informed that a new flightstick, which will be an improvement over the current version, will be released in late 1992.

Being the inventive soul I am, I decided to undertake a major operation. By using an old CH Products **Flightstick** and cannibalizing the Thrustmaster, I merged the two to create the perfect joystick.

Although the Thrustmaster was realistic enough, with the tension-bar feel of an actual jet control stick, it lacked any sort of trim adjustments, and its top-heavy box base would never stay put when pulled hard for those tight 9-6 turns. This hybrid joystick consists of the CH Flightstick base, with its trim adjustments and smooth fluid movement, combined with the Thrustmaster control grip. It retains all button functions for weapons and brakes, which can be used inside Falcon 3.0's configuration. The result is smoother, more realistic action with a much more functional and attractive base.

My next "operation" will consist of connecting the aircraft-style trim button (located at the top of the Thrustmaster's flightstick) to the base-trim setting wires so that the trim button will function just as in full-sized modern jets.

Jim M. Taylor
2134 Pilgrims Point Drive
Friendswood, TX 77546

We admire your ingenuity. Perhaps your letter will inspire the "inventive soul" in some of our readers. Game players who are less mechanically inclined may want to read our comparative review of the Flightstick, Mach III, Weapons Control System, and Flight Control System (January/February 1992, p. 62) for help in choosing the equipment that suits their needs best.

The Price of Sound

I'm on the verge of purchasing hardware for my computer, and I thought you might be able to help. I have an IBM-compatible Epson Equity 2 with VGA graphics, a 30MB hard drive, and one 5.25-inch drive.

I'm interested in purchasing a sound card. Should buy a **Sound Blaster** or a **Sound Blaster Pro**? I'll be using it strictly for games, but I want the best sound possible in that price range. I want something that won't become outdated quickly. Also, do I need to buy separate speakers?

I also want to "speed up" my computer. Last summer, I attempted to purchase **King's Quest 5** from Sierra On-Line. What a disappointment when I didn't have a computer fast enough to handle it. (I ended up exchanging it for **Ultima VI**, which I was extremely pleased with.)

Curtis Miles
6787 Corwin Crescent
Niagara Falls, Ontario
L2G 2M8
Canada

You need to consider several things. Cost can be a big factor: Sound Blaster Pro carries a suggested list price of $299.95; its predecessor is about half that. The difference is justified by additional features. Your current computer, however, can't handle the kinds of games that take advantage of the more fully featured Sound Blaster Pro. Looking to the future, you also should consider multimedia (the integration of text, graphics, sound, video, and animation), and the Sound Blaster Pro is the clear choice here. Of course, only you can make the final decision, but if you plan to keep your current computer, we recommend you buy Sound Blaster. Why spend extra money for features you can't use anyway? If you plan to upgrade, though, you'll certainly want a sound card that has features new games will exploit. As for speakers, they're not included with the sound cards. You can use headphones, but you'll probably want to buy speakers eventually. For more hardware-performance-related information, check out "Mega PC" (December 1991, p. 45), Barry Brenesal's review of Sound Blaster Pro (November 1991, p. 60), and "Breaking the Sound Barrier" (November/December 1990, p. 18).

Attention, Game Publishers

Recently I've noticed one thing about game programming that disturbs me. Usually someone shopping for a personal computer looks for the ultimate in speed, memory, and graphics. The only problem is that if you're looking for great graphics, you'll probably want SVGA 1024-by-768 with 256 colors. But what's the use? None of the game programmers I've heard of uses SVGA with 1024-by-768 and 256 colors. They all stick with the old 320-by-200 or 640-by-350.

Another thing that makes me mad is that some of the new games, such as **King's Quest 5**, come in two versions — one for 256 colors and one for all the rest of the graphics modes. Let's say you have a CGA card in your computer; you'd buy the version for that mode. Then what do you do if you buy a new VGA graphics card?

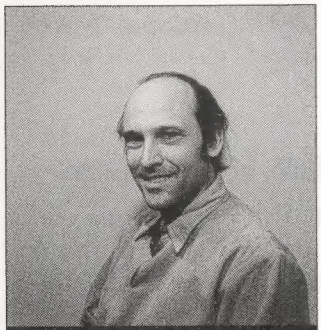
I think that any programmers reading this should consider these two problems carefully before designing another game.

Tim Johnston
149 Norway Road
Bangor, ME 04401

Editor's Note

An index of all software titles and hardware items covered in the September/October 1991 through January/February 1992 issues of PCGames *is available free by mail. For your copy, send a stamped, self-addressed, business-sized envelope (52 cents postage) to* PCGames *Index, 80 Elm Street, Peterborough, NH 03458.*

DESIGNERS' NOTES



By Chris Crawford

A WORD TO THE WISE

Veteran gamers, get with the program — or we'll lose it all.

This is for you, that special class of computer gamers — the aficionados.

You take game playing seriously. For you, games aren't idle or occasional entertainment. They're a major hobby. You spend hours playing games, and more hours reading magazines like *PCGames*. You have a large library of games and are quite knowledgeable on the subject.

You aficionados wield enormous power. You're the core market for games. All by yourselves, you might account for 50,000 copies of a game. But your influence extends far beyond that. You're the opinion leaders — you recommend games to a much larger group of occasional game players. A great many people make purchasing decisions based on your advice. Your support is essential to making a game into a hit, while a thumbs-down from you can kill a game fast.

You're not stingy with your advice, either. You make your opinions known in conversations with friends. If a game doesn't suit your tastes, you waste no time returning it to the store for a refund, along with a few choice comments to the salesperson about the product's worthiness.

You post your comments on bulletin boards or services such as CompuServe and GEnie. You write letters to publishers and authors presenting your suggestions for improving their products.

You love games and do your best to help — and you're smothering the industry with your love.

The central problem is that your tastes are more refined than the beginner's. You've played so many games that you know all the tricks, and you want more challenge. You want more complexity, more buttons to push, more devious puzzles, more demanding challenges.

But any game that would challenge an old pro like you would blow away a beginner. Imagine what happens when some poor slob of a computer owner decides that he wants to try a computer game and, after listening to your opinions, buys one of the latest monstrously complex masterpieces. His eyes bug out in horror when he pulls out a manual bigger than the one for Microsoft Word for Windows.

If he gets past that shock and actually starts playing the game, he's quickly overwhelmed by a mass of complex decisions. Within just a few minutes of starting the game, he's crushed by the computer, and, worst of all, he hasn't the faintest idea why or how. His game-playing experience was about as rich, rewarding, and long-lived as the movie *Bambi Meets Godzilla*.

And after a humiliating experience like that, our beginner isn't going to rush back to the store to buy more games. Odds are he'll never touch another computer game. He could have become a regular customer, a new member of the fraternity, but you drove him away with your well-meaning advice.

It gets worse. Not only do you aficionados unintentionally misdirect beginners to overly complex games, but you also disparage the games that are perfect for beginners. As an example, I offer the reaction to Brian Moriarty's game **Loom**. This is an ideal game for beginners: simple, clean, easy to learn, and fun. Yet many of you aficionados verbally stomped on this game because it's too easy to win. That was unwise, for any beginner finishing Loom will want to play more games. Loom brings people into the fold, making the marketplace bigger, which in turn justifies more lavish productions. Loom made this industry a better place for everybody.

Here's what I ask: First, recognize your place in the industry. You're the senior consumers, and the power you enjoy brings with it some obligations. You have a responsibility to the junior consumers who might someday join your ranks. Don't intimidate them with the big gorilla games they can't handle. Instead, nurture them with games that will encourage them to dip their toes further into the water.

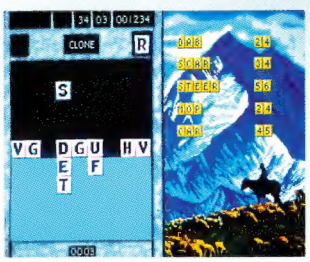
Second, respect the heterogeneity of the community. Big games are

Continued on page 139

Another Eastern block falls.

There's a new 'TRIS on the block. Its name is WORDTRIS. And if you love TETRIS, this latest fast-action, falling block, Soviet game will boggle your mind.

This time the falling pieces are letter blocks. Form them into words and score points. As each block falls, it pushes down the blocks below, producing an ever-changing kaleidoscope of letters where scoring opportunities appear - and vanish - at the blink of an eye.



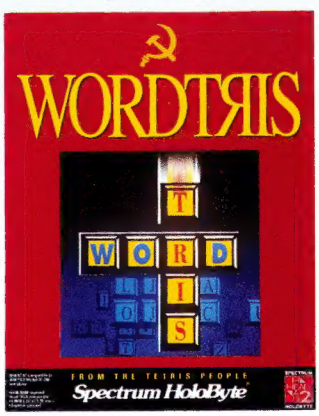
Go for XYLOPHONE if you dare.

Create words horizontally or vertically, but don't put all your E's in one BASKET. Because every time a word lines up, *poof!* those letters disappear, and the blocks below pop up to fill the spaces. So whenever you earn points you stir up the alphabet soup. And suddenly that falling M has no HOME to go to.

WORDTRIS keeps raining vowels and consonants until you've collected enough words to move to the next level, or the well fills up. Of course, each successive round ups the ante as the blocks fall ever faster. But you can choose your difficulty level to match your skills, and select from single player, cooperative, competitive, head-to-head or tournament modes. The built-in 30,000 word dictionary verifies even the most obscure word.

Set the difficulty level at 10 and you'll find WORDTRIS harder to keep up with than the changes in Eastern Europe.

WORDTRIS. Another great game from the TETRIS people.



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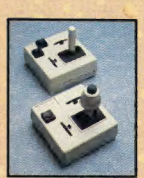

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